REPORT RESUMES

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REPORT ON THE INTENSIVE LANGUAGE COURSES FOR THE BLIND, 1960-1966.

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A DETAILED DESCRIPTION IS GIVEN OF AN EXPERIMENT CONDUCTED AT GEORGETOWN UNIVERSITY FROM 1960 TO 1966 IN WHICH SELECTED BLIND STUDENTS, THROUGH INTENSIVE AUDIOLINGUAL LANGUAGE INSTRUCTION, WERE TRAINED TO BROADEN THEIR EMPLOYMENT POTENTIAL. ALTHOUGH ONLY RUSSIAN AND THE TRANSCRIPTION OF ORAL FOREIGN LANGUAGE MATERIALS WERE TAUGHT IN THE PILOT COURSE, IN THE SUBSEQUENT TWO, GERMAN AND INTENSIVE COURSES IN SPECIFIC GOVERNMENT TRANSCRIPTION WORK AND TEACHER TRAINING WERE INTRODUCED. IN ADDITION TO EXTENSIVE DESCRIPTIONS OF THE ORGANIZATIONAL, METHODOLOGICAL, AND SOCIAL FEATURES OF EACH COURSE, THERE IS A DETAILED RECORDING OF THE UNIQUE ASPECTS OF THIS LEARNING SITUATION, INCLUDING SEMINARS, LECTURES, A TYPICAL LESSON PLAN AND EXAMINATION, BIBLIOGRAPHIES OF SOURCES, TEACHER TRAINING CLASSES, TRANSCRIPTION GROUPS, AND RESEARCH IN METHODOLOGY AND TEACHING AIDS. ALSO HIGHLIGHTED AND DESCRIBED IN DETAIL ARE AN INTERVIEW WITH A BLIND SPECIALIST ON TACTUAL AIDS, THE FINDINGS ON TEACHING AIDS CURRENTLY IN USE IN THE U.S., ENGLAND, AND GERMANY, AND THE USES OF SCRIPT AND ENGRAVED LETTERING GUIDES. (AB)

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Georgetown University

A Report
on the
Special Intensive Language Courses
(for the Blind)
1960-1966

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August 1966

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Special Language Projects
The Institute of Languages and Linguistics
Georgetown University

REPORT
on the
SPECIAL INTENSIVE LANGUAGE COURSES
FOR THE BLIND
1960-1966

Compiled by R. Ross Macdonald

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The Institute of Languages and Linguistics
Georgetown University
Washington, D.C.
August, 1966

The research on which this report is based was conducted at Georgetown University under the direction of Professor Leon E. Dostert (1960-1964) and Dr. R. Ross Macdonald (1964-1966). The staff included the following members:

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REPORT ON THE FIRST COURSE: 1960-62

INTRODUCTION

A special language project for the training of the blind in language skills was inaugurated in September 1960 at Georgetown University.

The idea of such a course was propounded by Professor L. E. Dostert of Georgetown University as a result of discussions in the course of which two needs became clear: the need for enlarging the employment opportunities for the blind and the need of government agencies for personnel trained in particular languages, to transcribe oral material in those languages into written material, either in the language itself, or, by translation, into English.

Professor Dostert proposed a pilot project to train fifteen blind persons in Russian both for general language skills and specifically for transcribing oral Russian.

The Department of Health, Education and Welfare, through its Division of Vocational Rehabilitation, accepted this proposal, made a grant of funds, and the course was organized with the co-operation of those other government agencies which might be interested in employing the graduates of the course.

The pilot course continued from September 1960 until August 1962. This course is referred to in the following report as the First Course. Beginning in September 1962 interested graduates of the First Course were given an intensive introduction to the specific type of transcription work they would be expected to do when employed by government agencies. At the same time a new group of students began their language training. In this case the students were training either to transcribe, or to serve as teachers of language. German was introduced as well as Russian. This phase is referred to in the following report as the Second Course.

In September 1964, the graduates of the second course who were interested in transcribing were hired by the interested agencies and given their specialized training in the specific location in which they would be employed. The graduates who were interested in language teaching were given specialized training as language teachers at Georgetown University, and research was conducted to test teaching aids which would prove useful to a blind teacher, particularly when teaching sighted students. This phase is referred to in the following report as the Third Course.

PHYSICAL ARRANGEMENTS

The building in which the course was given was a town house, belonging to Georgetown University, but at some distance from the campus. The building also housed other special language projects.

The classrooms, laboratory and recreational space for the blind students were in the half-basement of the house. No other activities were conducted there. In this way, the problems of the students in moving about were minimized; there was no repositioning of furniture and no introduction of possible obstacles without the students all being aware of the change. Each student had a key to the outside door of the basement, and so could enter to study at his convenience, whether the remainder of the building was officially open or not.

Because the classroom building was at some distance from the campus, and because campus dormitory space was limited and committed far in advance, it was not possible to arrange for the blind students to be accommodated in the university dormitories. Rented rooms or apartments were found for them within easy walking distance of the school building. No particular difficulty was experienced in finding lodgings for students with dogs. In addition, workers from the Columbia Lighthouse for the Blind organized an orientation course; the students were soon able to travel back and forth to class, to make purchases in the local stores, and to be generally self-sufficient. The language teachers observed this course and helped in it so that they would have greater insight into the problems of a blind person in moving about and into the methods by which these problems are conquered. This participation also prepared the teachers to be helpful in similar situations which arose later.

For classroom work, the students were divided into two groups, one of seven students, and the other of eight. Each group was assigned to a separate classroom, but the membership of the groups was varied each month so that all of the students learned to use both classrooms, and came to know each other well. Each instructor taught each group each day, and the students soon became used to their various manners of speaking and of presentation.

During class periods, the student chairs were arranged in a semi-circle. This permitted the instructor, standing in the center, to approach each student directly, and to listen closely to his responses, especially when checking pronunciation. This arrangement also conduced to an informal atmosphere in the classroom. Moreover, responses were better when the student had the impression of being addressed directly and immediately. The teacher could move quickly to engage the attention of any student if he felt that that student's attention was wandering.

The laboratory was equipped with standard semi-soundproof booths. Each booth was provided with a tape recorder on which the student could listen to his tapes independently of the other students, and so each student was able to do his own work at his own rate of speed. The laboratory is duscussed in more detail in a succeeding section of this report (page 19).

One of the classrooms, when not in use as a classroom, was used as an office by the instructors. The other classroom was also used as a student lounge, and all social activity and conversation was shepherded into that room in order to prevent distractions in the laboratory and the study areas. A piano in the lounge and vending machines by the entrance to the building proved to be welcome and useful additions.

In the spring semester of 1962, it became necessary to move to another building. The physical arrangements in this building are given in the introduction to the second course (page 34).

TESTING FOR LANGUAGE APTITUDE

The first step was the selection of the students. No completely suitable aptitude examination was known to exist. Consequently, Dr. R. G. Gardner, of the University of Western Ontario was asked to adapt Dr. J. B. Carroll's *Modern Language Aptitude Test* (MLAT) so that it could be administered entirely orally.

This adaptation is called the *Modern Language Aptitude Test for the Blind*. It consists of five sub-tests selected from the MLAT, and suitably modified. These are:

Test 1:	Number Learning	Tests memorization skills and overall auditory awareness.
Test 2:	Words in Sentences	Tests perception of grammatical patterns.
Test 3:	Paired Associates	Tests ability to memorize by rote.
Test 4:	Co-operative Vocabulary	Tests English vocabulary.
Test 5:	Phonetic Discrimination	Tests ability to perceive phonetic distinctions.

1: In the original Number Learning Test, the examinee is given a period of time to learn an artificial number system from a tape recording. He is then tested on his ability to identify the numbers from dictation.

The original test is presented orally, but the examinee writes his answers. Consequently Dr. Gardner needed to alter only the examinee's means of identifying the numbers. The blind examinees are presented with an answer sheet on which raised dots were arranged in groups of five. Each group of five dots was separated from the next by a raised line which facilitated finding the correct section. The examinees were told that each dot within each section represented a different number. Of the dots on the left hand side of the page, (the hundreds), the first dot represented "no hundreds," the second dot, "one hundred," the third, "two hundred," the fourth, "three hundred," and the fifth, "four hundred." This same pattern pertained in the section representing the tens, and in that representing the units. The examinee could then respond by circling or otherwise making the appropriate combination of dots.

2: In the original Words in Sentences Test, the examinee is presented with pairs of written sentences. The first sentence contains one operational word which is marked by being written in capital letters. The second sentence has five underlined words. The examinee must select the one of those five underlined words which has the same function in the second sentence as the capitalized word has in the first sentence. For example:

1. The man went into the HOUSE.

2. The church next to the bowling alley will be built in
A B C
a new location next year.
D E

The student must select the word in sentence 2 which has the same function as HOUSE in sentence 1.

The original test is conducted entirely in writing. In Dr. Gardner's modified version, the first sentence is read aloud to the examinees, and the operational word is repeated. The second sentence is then read aloud, this is followed by a reading of the five underlined words individually; and the complete second sentence is then read again. The blind examinee answers using a booklet in Grade Two Braille. The booklet lists, for each pair of sentences, the operational word from sentence I and the five underlined words from sentence 2. The examinee marks his choice by drawing a line through one of the five words.

3: In the original Paired Associates Test, the examinee is given four minutes to memorize, from the written materials, Kurdish-English vocabulary pairs. After the learning period, he is given a four-minute test of his ability to retain the material. The Kurdish word is presented in writing, followed by five possibilities in English, the examinee marks the English possibility which he favors.

In the adaptation for the blind examinee, the vocabulary pairs are presented orally by means of a tape recording. Each pair is repeated twice. When all of the pairs have been presented, the entire list is repeated. The test for retention of the material is also presented orally. The examinee hears the Kurdish word, followed by five English alternatives. He indicates which of the five alternatives he favors by drawing a line through one of five raised dots in the appropriate section of a raised-dot answer sheet

4: In the original Co-operative Vocabulary Test the examinee's knowledge of English vocabulary is tested by means of a conventional written multiple-choice test.

In the adaptation of the test, the blind examinee is presented orally with fifty vocabulary items, each with five possible choices after it. The examinee draws a line through one of five raised dots in the appropriate section of a raised-dot answer sheet to indicate the choice he favors.

5: The Phonetic Discrimination Test was developed by Stanley H. Sapon. In the original form, the examinee hears a sound which he will be asked to identify with one of four other sounds presented afterwards. He may, if he wishes, make a visual symbol on paper as an aid in remembering the first sound.

Since this examination is, in effect, entirely oral, the blind examinee is limited only in that he has no convenient way of making a notation to aid his memory. For this reason, the first sound is tested against only two subsequent sounds.

The Foreign Language Aptitude Test was given, at a number of different cities, to fifty-seven applicants for the first course. Fifteen students were selected.

Later, in correlating the class performance of the fifteen with their scores on the FLAT, Dr. Gardner concluded that the "Words in Sentences" and the "Number Learning" tests were the two best indicators of ability in languages. ". . . these two tests appear to measure a student's ability to memorize meaningful materials, sensitivity to grammatical structure, short term memory and general auditory alertness . . . ." On the other hand, the Vocabulary Test seemed to show the least correlation, suggesting that extensive knowledge of one's native vocabulary does not predict skill in learning a foreign language. Similarly, the correlations of the Phonetic Discrimination and Paired Associates Tests were too low to be of much predictive use.

TEACHING STAFF

The teaching staff for the course consisted of two native speakers of Russian, Mr. Dmitri Schulgin and Mrs. Alexandra Baydalakova.

Neither of these teachers had had any direct experience with the teaching of the blind, but both were well versed in the teaching of the Russian language.

In addition, Mr. Michael Zarechnak, served as linguist-consultant, overseeing the teaching procedure in a general way, and providing advice on methodology.

SCHEDULE

The schedule of classes during the first year was originally established as follows:

9:00 a.m.	Class
10:00 a.m.	Class (with change of instructor from previous class)
11:00 a.m.	Laboratory (study period monitored by instructors)
12:00 m.	Lunch
1:00 p.m.	Class
2:00 p.m.	Class (with change of instructors from previous class)
3:00 p.m.	Laboratory (study period monitored by instructors.)
4:00 p.m.	End of formal class and study periods

This schedule was generally an effective one. However, the pattern of two classes followed by laboratory, while acceptable in the morning when everyone was fresh, proved to be tiring in the afternoon. The schedule for the afternoon was consequently changed so that the laboratory period came at 2:00 p.m. and the second class period at 3:00 p.m.

Classes were conducted Monday through Friday, observing the general university calendar, for three semesters in the year (fall, spring and summer) and for two years.

The pattern of twenty hours of class per week was maintained throughout the course.

During the second year, when special subjects were introduced, the twenty hours were apportioned in the following way:

SCHEDULE, FALL, 1961

Writing skills	2 hours
Newspaper articles	13 hours
History and geography	4 hours
Club activities	1 hour

SCHEDULE, SPRING, 1962

Writing skills	2 hours
Newspaper articles	7 hours
History and geography	4 hours
General vocabulary	2 hours
Russian literature	4 hours
Club activities	1 hour

SCHEDULE, SUMMER, 1962

Writing skills	2 hours
Newspaper articles	2 hours
History and geography	4 hours
Russian literature	1 hour
Structure drill	1 hour
Translation drill	1 hour
Free discussion	6 hours
Review	2 hours
Club activities	1 hour

In the second year, the number of class hours remained the same, but the monitored laboratory drills were discontinued; the students were well aware of the importance and value of the laboratory work, and, left to themselves, did much more in the laboratory than only the monitored periods would have entailed.

METHODOLOGY

The two fundamental principles of the methodology were these:

1) to demonstrate to the students the characteristics of the structure of the Russian language exclusively by oral means
2) to create immediately a Russian ambiance so that the students would operate directly in Russian rather than by means of transfer back and forth between Russian and English.

The first class period was devoted to the assigning of typical Russian names to the students on the basis of their given names and their fathers' given names. This naming system, so different from English and so characteristic of Russian, immediately introduced to the students the idea that they were dealing with a linguistic and cultural structure quite different from that which they normally used.

A part of the first lesson was also devoted to the memorization of an elementary dialogue, made up of phrases which would be useful to the students in greeting and leave-taking.

As the lessons proceeded, the material of the textbook was introduced to the students.

During the early stages, there was a particular emphasis on pronunciation. Pronunciation was not, however, discussed as a topic in itself, but each problem was drilled as it came up in the course of the material designed to introduce the morphological and syntactic structures.

Items of vocabulary were also introduced as needed, either because the items occurred in the teaching material, or because they were necessary in the classroom situation. The general principle governing the introduction of vocabulary was that the student should first be taught those items which were most immediate to the classroom situation.

Then, by gradual steps, the items of vocabulary covering more remote situations would be introduced, until the student was competent to handle the vocabulary of any situation in which he might normally find himself.

The characteristics of the morphological structure were introduced through the interplay of minimal contrasts in the language. Thus, the various declensional endings of the noun were introduced in sentences which would be as similar as possible except for the difference in the declensional ending. In this way, the student's attention was directed at both the difference in form and the difference in function of the various endings. All of the structural characteristics, both in the morphology and in the syntax, were treated in this same way.

In the course of the teaching, the instructors utilized the English language as little as possible, and usually only in terms of single words or single sentences which would explain an item of vocabulary or a meaning much more quickly than it could be done by demonstration or example, with a consequent saving of class time.

At the beginning of the second year, the content of the program and even the methods of conducting lessons were radically changed because of the absence of suitable texts. It became necessary to select material from various sources in order to achieve the aims of the course.

TEXT MATERIALS

No textbook was available specifically for the teaching of Russian to the blind. It was therefore decided to select a book which could be adapted to the immediate needs of the project. The book selected was that used in the standard Russian classes at the Institute of Languages and Linguistics of Georgetown University. This was Russkii Yazyk by Mariana Poltoratzky and Michael Zarechnak. This material was supplemented by selected lessons from the elementary course in Russian by N. P. Potapova. Certain supplementary materials were also prepared by the members of the staff.

The problem of presenting materials which are in a written form to students who are blind in a course which uses the oral approach was solved by means of tape recordings. No currently available tape recordings met the needs of the course, however, and so the instructors had to make entirely new recordings which were also much more detailed and comprehensive than the standard ones.

All the text materials were recorded on master tapes. Copies for the students' use were made from the master tapes so that each student had a copy of all material which was being currently handled in class. Once the material had been covered, the student exchanged his tape copy for a tape copy of new material. The tapes handed in were used to make copies of later material, except two copies of each which were kept in the library so that they could be used for review purposes if needed.

FALL, 1960

During the fall semester (1960-1961), the first seven lessons from Poltoratzky and Zarechnak were used. The supplementary material from Potapova concentrated largely on the verbs of motion.

SPRING 1961

During the spring semester, the last five lessons of Volume I of Poltoratzky and Zarechnak were taken up, followed by the first three lessons from Volume II of the same text. Auxiliary materials from Potapova continued with the verbs of motion, and introduced the prepositional system. A one-act play, "The Wedding" by Anton Chekhov, was also used.

SUMMER 1961

During the summer semester, the remaining lessons of Volume II of Poltoratzky and Zarechnak were completed. Supplementary materials were also used.

FALL 1961

In the fall semester (1961-1962), the advanced course began. The aims of this course were to familiarize the students with the use of the Russian language in everyday situations, and also to familiarize them with the cultural, historical and political background of the area in which Russian is spoken.

At this point, any use of the English language by either student or instructor was strictly forbidden. Certain of the taped newspaper articles did, however, have vocabulary lists appended to them in which the Russian items were glossed in English.

Current articles were chosen from Soviet newspapers. Nine selected articles from newspapers were used. These articles covered such topics as city life, vacation resorts, sports, the film industry, and typical Soviet political writing. These articles were selected so that they increased in difficulty; the original text of the articles was, however, neither simplified nor modified in any way. The articles were studied in class and in the laboratory, and their content was the subject of thorough discussions by the students; these discussions frequently took the form of informal debates in which the students were assigned opposing points of view on the topic under discussion.

The work on history and geography was designed to prepare the students for a better understanding of the current material they were studying, and to help them understand the political orientation and economic system of the Soviet Union. The history course covered the period from the earliest reported times up to and including the reforms during the reign of Peter the Great. The geography course included a survey of the Soviet Union, its topography and national resources, and its geographic position in relation to the countries and seas which border on it. The material in history and geography was recorded on tape, and the student listened to it in the laboratory before coming to class. No explanations or vocabulary listings were provided, and the student was forced to comprehend the information on the basis of the context and of his own knowledge of the language. When the student came to class, for two class hours in the week, the instructor reviewed the material, supplementing it with further facts and ensuring that the students comprehended the content.

SPRING 1962

The materials used in the spring semester were of the same pattern as those used in the fall semester, except for the addition of works of literature. The literature introduced included excerpts from War and Peace by Tolstoy, the short stories The Boys by Chekhov and Our Father and The Tunnel by Kataev, as well as an historical sketch by Platonov. Particular everyday situations were discussed so as to evoke the items of vocabulary normal for those situations; typical situations were the household, medical care, music, science, and the animal and vegetable kingdoms.

Some ninety articles selected from current Soviet newspapers were used. These articles covered such topics as education, industry, agriculture, scientific achievements, including space and Arctic explorations, travel, political life, jurisprudence, recreation, weather reports, radio and TV programs.

In the work with the Soviet newspaper articles, the stress was on achieving spontaneous comprehension of the content. A new article was introduced in each class. This article was read twice aloud, and the students' comprehension was checked by questions and discussion. Toward the end of the semester, the students were asked to choose an article at random and to narrate it back or to discuss it with the other students after it had been read to them.

The discussion of history covered the period from the death of Peter the Great to the death of Nicholas the First.

The geography course continued with the agriculture of the Soviet Union, light and heavy industries, the organization of the Soviet economy, and an intensive study of the central portion of Russia proper.

SUMMER 1962

In the summer semester thirty more articles from current Soviet newspapers were used. The history course covered the period from the death of Nicholas the First until the revolution of 1917. The geography course covered the rest of the territory of the Russian republic. The literature selections were Three Old Men and excerpts from Sebastopol by Tolstoy, Taman and excerpts from Maxim Maximych and from Bela by Lermontov, selected poems by Pushkin and Tyutchev, short stories by Chekhov and Zoshchenko, and the one-act play Silnoye Chuvstvo by Ilf and Petrov.

Several lecturers were invited to talk to the students on varied subjects. After each lecture, a seminar meeting (two hours) was held. Each student in turn was asked to conduct such a seminar by introducing the discussion. Then the remainder of the group expressed its opinion individually, or, more frequently, were divided into two teams which took opposing points of view on the question.

THE LABORATORY

A well-equipped language laboratory is absolutely essential for a course of this type. The laboratory provided consisted of sixteen semi-soundproof booths each containing a tape recorder and a Cyrillic typewriter, so that each student had an independent work space. In addition, the students were provided with portable tape recorders which they could use for home study.

The instructors recorded master tapes. These were kept in the tape library, and were never used by the students. The tape recorders in the booths in the laboratory could be interconnected in such a way that they could be used for making copies of the master tape. These copies were also kept in the tape library and were handed out to the students as required. When the students as a whole had finished working with a particular set of copies, all of these tapes except two were erased and were used for making new copies. The two copies which were not erased were kept in the tape library and could be used by the students for review purposes at any time.

The manner of recording the tapes necessarily differed from standard procedures because of the fact that the students were not able to read the textbook, and the fact that no Braille materials in Russian were available. Thus, the tapes which had been made to accompany the textbook and which were customarily used by the sighted students proved to be almost useless.

The recordings which were made especially for the course fell into three categories.

The first category of recordings stressed vocabulary. Each item of vocabulary was first glossed in English, and then the item was given, usually five times, in Russian, with pauses in between to allow the student to repeat. The student was asked to study his vocabulary in two ways. At first, he was to listen to the tape and repeat each Russian repetition as he heard it. Subsequently, he was to listen to the tape and to attempt to give the Russian as soon as he heard the English and before the Russian was presented by the tape.

The second category of recordings contained the textual material which the students were to study. Each sentence was read twice, with a pause after each reading to give the student an opportunity to repeat. At the end of the tape, the entire text was read once again without pauses so that the student could listen to it as a unit. At first, when the text material was presented in Russian, an English translation was given for the students' benefit. After a short time, however, it became clear that the English translation was more of a hindrance than a help to the students, since they learned the translation quickly enough, and were merely bored by having to listen to it again and again while they studied the Russian. If a student had any difficulty with the meaning of the text on this category of tapes, he could always refer to the vocabulary on the vocabulary tape and so resolve his difficulty.

The third category of recordings was originally intended to present synopses of the grammar and exercises for drill purposes. Again, it rapidly became clear that the grammatical synopses in English were readily absorbed by the student from oral discussions in class, and their repetition on the tapes contributed very little. This category of recording, then, evolved into a series of structural drills, each preceded by a brief instruction as to how the drill was to be carried out, with an example in the more complicated cases. The sentences which were to stimulate the student's response were next presented, with sufficient pause after each for the student to make his response. Then the correct response was given on the tape so that the student could know immediately whether or not he was accurate.

In the second year, when materials from newspapers and literature were introduced, and when lectures on geography and history were given, the new vocabulary was at first given in great detail in the first category of recordings. After a brief period, however, the instructors began to feel that it would be more beneficial to the student if he were required to rely more on his actual knowledge of Russian and on his sense of the context in order to determine the meaning of the vocabulary; any possible misconceptions would be caught during the class period and corrected. And so fewer vocabulary tapes were prepared. The material from Soviet newspapers was generally glossed fairly thoroughly by means of vocabulary tapes, but the other material was glossed during the classroom periods rather than on tape.

As the students became more competent in Russian, greater use was made of the second category of tapes for introducing material for the first time so that the student could be expected to enter the classroom with a considerable knowledge of the material in history or geography, for example, which was to be taken up on that day.

WRITING

The students were introduced to the Russian writing system during the spring semester of 1961. Thus, they studied the language very intensively and only orally for over four months before beginning to write.

(As the vocabulary load increased in the first semester, however, many of the students felt the need of being able to write down the words to be learned. They acquired a listing of the Russian Braille Alphabet and studied it on their own.)

The students were first introduced to the Cyrillic alphabet in its Braille form, and were made aware of the various values of the letters and their relationship to spoken Russian. Much of this was easy because similar Braille conformations are used for similar sounding letters in both the Latin and the Cyrillic alphabets. It was not anticipated at first, however, that the rather complicated method of differentiating plain and palatlized consonants and of symbolizing the sound /y/in its various positions, as well as the use of certain silent letters such as the 'soft sign', would prove so difficult. The problem of the spelling of vowels in unaccented syllables also proved to be more difficult than was anticipated.

Three methods were attempted:

a) The instructors, assuming that, because Russian spelling seems "phonetic" to them, it would seem "phonetic" to the students also, further assumed that the students would be able to spell anything they heard. This proved not to be the case.

b) The instructors next tried to teach the spelling by teaching the forms of the prefixes, suffixes and roots and the rules for their combinations. This is the method ordinarily used in Russian schools. Because the students in this course did not yet know Russian as well as a native speaker, and did not have the command of a sufficiently large vocabulary to make this sort of approach useful, this method also had to be abandoned.

c) The most useful method proved to be providing the students with large amounts of Brailled texts which they could read and reread until they began to acquire a feeling for the patterns of Russian orthography. This providing of the texts had to be done by dictating the texts letter by letter to the students, and this required much time. (In succeeding courses, one of the better students who was partially sighted (no side vision) was hired to copy the texts in his spare time, making a master copy; which could then be reproduced by Thermoform for the students as a whole.)

Since Russian does not have any generally accepted system of Grade II Braille, the overall problem of teaching Braille was otherwise simpler than it is in languages like German where a well-developed Grade II Braille is consistently used.

The students were taught to type Russian. Each student was supplied with a Cyrillic typewriter. Moreover, each student was already competent at typing on the standard English typewriter. The position of the letters on the Cyrillic keyboard was explained to the student in terms of the English letter which appears on the same key on an English typewriter. In this way, the students learned to use the Cyrillic typewriter very quickly. It must be admitted, however, that there was, for a while, a great deal of interference, so that the students had to direct much more attention to their typing of English than formerly, in order to avoid making mistakes caused by this interference.

Writing classes were held one afternoon in the week. When the students had developed enough skill, they were given Russian texts recorded on tape, and could practice transcribing these texts in the laboratory. The students' typewriters were placed in the laboratory booths in front of the type recorder. The students thus used the laboratory for their written work as well as for listening and drilling.

EXAMINATIONS

During the first semester of the course a number of achievement tests were given. These were not regularly spaced, but occurred when certain phases of the material had been covered. From the results of these examinations, the staff was able to evaluate the progress of the students, and the effectiveness of the teaching techniques. Any modifications in the program which seemed indicated were thereupon made.

At the end of the first semester, considerable thought was given to the form which the final examination should take. It was finally agreed, the students themselves concurring, that each student would be examined for a period of forty-five minutes to an hour. The examination was necessarily entirely oral, since no written work had as yet been introduced. The examining board was to consist of the two regular instructors and a chairman invited from some other teaching staff; the chairman might or might not be from Georgetown University, but should be someone who had had no direct contact with the blind students. The chairman, after being briefed on the materials which the students had covered, was to decide on the form of the examination.

The examination, when formulated, consisted of six parts:

a) Twenty-five vocabulary items (25%)
b) Five useful expressions (5%)
c) Five sentences to be translated from English into Russian (5%)
d) Ten structural exercises (10%)
e) Fifteen questions to be answered in Russian (15%)
f) A free rendition of one of the seven narratives from the lessons of the basic textbook (40%).

The examination gave greater weight to conversation and free rendition, in accordance with the basic stress of the course on ability to speak Russian fluently. Eight of the students received a grade of A, five received a grade of B, and two received a grade of C. The average for the group was a grade of B plus.

The examination at the end of the spring semester was slightly modified. It consisted of the following five parts:

a) A prepared story (The students were given a list of topics in advance, and were instructed to prepare brief stories on all topics. At the time of the examination, each student drew one title by lot, and was required to relate that material.) (30%)

b) An unprepared story (Each student was given a topic from a list prepared by the examiners. The topic was given to the student for the first time in the course of the examination, and he had no means of knowing what topics, or what particular kind of topic, would be assigned.) (30%)

c) Five structural exercises. (15%)

d) Three sentences to be translated from English into Russian, and two sentences to be translated from Russian into English. (15%)

e) Ten questions to be answered in Russian. (10%)

Twelve of the students received a grade of A, two received a grade of B, and one received a grade of C. The average for the group was a grade of A.

The final examination for the summer semester consisted of two sections. The first section was a written examination in the form of a dictation. (The students had now progressed far enough in their writing that it was feasible to give dictation.) The dictation constituted 8% of the examination. The remaining section of the examination was oral, and consisted of the following four parts:

a) A prepared story. (30%)

b) Free conversation with a fellow student on an assigned topic. (30%)

c) Four structural exercises. (12%)

d) Ten Russian questions to be answered in Russian. (20%)

Nine of the students received a grade of A, four received a grade of B, and two received a grade of C. The average for the group was a grade of A minus.

With the beginning of the second year, the nature of the teaching materials changed considerably. The examinations continued to be conducted by a board of three examiners as formerly, but there was necessarily a change in the type of work required.

The final examination for the fall semester consisted of two sections: written and oral. The written section consisted of ten structural problems, and constituted 30% of the total examination. The oral section consisted of the following three parts:

a) A prepared story based on the newspaper articles. (30%)

b) Fifteen questions, based on newspaper articles, to be answered briefly, with comprehension, speed of reaction, and fluency of speech all being considered in the examiner's rating. (30%)

c) Five sentences from Russian newspapers to be translated into English. (10%)

Eight of the students received a grade of A, two received a grade of B, three received a grade of C, and two received a failing grade. The average for the group was a grade of B.

The final examination for the spring semester also consisted of two sections. The written section consisted of a free composition in Russian and of a dictation from a newspaper. Both of these together constituted 8% of the total examination. The oral section consisted of the following three parts:

a) Six sentences from newspaper articles on political subjects to be translated. (12%)

b) Questions on Russian literature, with comprehension, speed of reaction and fluency being considered, along with content. (35%)

c) Narration of new material read twice by the examiner. (45%)

Eleven of the students received a grade of A, one received a grade of B, and three received a grade of C. The average for the class was a grade of B plus.

The final examination of the summer semester of 1962 was also the final examination for the course. It also consisted of two sections. In the written section, the students were asked to write on a topic of their own choosing. This constituted 10% of the total examination. The oral section consisted of the following three parts:

a) A passage chosen at random from a Soviet newspaper to be translated. (30%)

b) Narration of the content of an article chosen at random from a Soviet newspaper by the student, and read to the student twice. (30%)

c) An oral critique of a character, situation or event chosen from the literature or from newspaper articles. (30%)

The topics offered under section c) were the following:

The USSR and the Geneva Conference on Disarmament

The Berlin Crisis
The Pros and Cons of Studying Latin in High School
The Educational System in the USA
Aid to Underdeveloped Countries and Its Influence on the Economy of the USA
How Would Chechevitsin Get Along If He Came to the USA? (Chechevitsin is a character in the short story The Boys by Chekhov.)
Napoleon's and Hitler's Invasions of Russia as Reflected in Russian Literature
The Role of Women in Contemporary War, with Specific Reference to The Tunnel by Kataev
Was the General in Kataev's The Tunnel a Good General and a Good Man?

Eight of the students received a grade of A, four received a grade of B, one received a grade of C, and one received a grade of D. The average for the class was a grade of B plus.

ACTIVITIES

In the spring semester, 1961, a Russian Club was organized, and one of the class hours per week was devoted to club activities. The students learned a number of Russian folk songs; the piano in the recreation room was particularly useful for this purpose, and some of the students had guitars. The instructors aided the students in memorizing the words of the songs and in explaining the various idiomatic expressions and cultural references in which folk songs abound. The students also learned to play cards, using the Russian terminology for the suits and values. Occasionally, one student would read a story from one of the Soviet Braille magazines, under the supervision of the instructors. From time to time, the students played common parlor games which would require the use of Russian. English was strictly forbidden at all club meetings.

During the spring semester also, the students put on Chekhov's one-act play The Wedding. This play was originally introduced as teaching material, but the students soon suggested that they endeavor to present it as a play. It was thereupon arranged that the presentation should take place before an audience, and the performance was given at the end of April, 1961, in the Hall of Nations of Georgetown University before an audience composed chiefly of native Russians, but also including other Russian students from the Institute of Languages and Linguistics. The blind students rounded out the program with the rendition of a number of Russian folk songs. Putting on this play was an important factor in developing poise and fluency in the students and in giving them a sense of their ability to communicate in a larger area than the classroom.

A subscription to the Soviet magazine for the blind, The Life of the Blind, provided reading material for the students. The magazine is published in Braille.

In the summer of 1961, Mrs. Baydalakoff invited all of the students to a garden party at her home. This party gave the students an opportunity to become acquainted with the Russian cuisine. In addition, since a number of native speakers of Russian whom the students had not previously met were also present, the party gave the students an opportunity to listen to and to speak with a number of people, with different manners of speaking and different interests to discuss. The garden party was such an enormous success that it was repeated each summer as long as the courses continued.

In the spring semester of 1962, two correspondents from the Voice of America interviewed the students and a recording of the interview was broadcast by the Voice of America.

In May, the students and the faculty took part in the annual meeting of the President's Committee on Employment of the Handicapped.

During this semester also, a series of guest lecturers was invited to address the club on a variety of topics: Russian Drama and Literature, Russian Music and Opera, Tolstoy as a Philosopher, and Travels in the Caucasus and Central Asia. These lectures proved so useful and informative that they were made an integral part of the course work from this time on.

In the summer semester of 1962, in addition to Mrs. Baydalakoff's garden party, there was a graduation party given by Professor Dostert, the Director of the course. During this party, plans were announced for the next course and a description of the material to be covered was given.

DISCIPLINE AND WELL-BEING

On the whole, the problems of discipline during this course were negligible. The students had been very carefully selected and proved to be mature and dependable. One of the students refused to take the written part of the final examination, and, consequently, was not permitted to take the oral part, but this was the only significant difficulty.

The students were in good health and remained so. One of the students had to undergo two eye operations, and would have missed significant parts of the work in two separate semesters if the staff had not made special arrangements to provide him with taped materials to work with while he was in the hospital and while he was convalescing.

REPORT ON THE SECOND COURSE: 1962-64

INTRODUCTION

The experiences of the first course in Russian prompted the establishment of a second course to run from September, 1962, until August, 1964. In addition to the previous instruction in Russian, instruction in German was added. A large number of the students from the previous course were to continue with intensive training in transcription work; these students had already been hired by government agencies interested in hiring personnel with this type of training; the present report covers those activities which were supported by grants of funds from the Department of Health, Education and Welfare, and so the work undertaken for these other agencies is not described in this report. In addition, three of the students from the former course were retained as assistants in instruction for the training of the new students in Russian. Consequently these three students both received training as teachers, and intensified their knowledge of Russian.

The recruiting for the second course followed much the same pattern as that for the first course. However, thirty students were to be accepted rather than fifteen. The screening process was consequently less discriminating, and not all of the students in the second course had the qualifications in language aptitude or in personal security which were possessed by the students of the first course. This factor was to lead to a number of difficulties and to a definite diminishment of the effects of the course, since the teachers had to spend considerably more time with the students on purely personal problems, and a number of the students were absent for reasons of health at various points during the course.

(Subsequent experience in offering language courses for the blind has indicated that it is probably not possible to recruit more than ten students a year who have the necessary all-round qualifications for language study, and it is probable that even this number is high.)

Because of the increase in the number of students, there was an increase in the number of instructors. In addition to Mr. Schulgin and Mrs. Baydalakoff, who taught in the first course, Mrs. Tatiana Zelensky and Mr. Nicholas Myschenkoff taught in the Russian course. Mrs. Ilse Christoph taught German. As mentioned above, three of the students from the first course worked as assistants in instruction in the second course in Russian. After the first semester, Mrs. Christoph found it necessary to have an assistant in German. There was actually a succession of German assistants; changes had to be made because the assistants were students at Georgetown University, and they had to give up their work with the course because of the pressure of studies, or because of finishing their own course of studies.

The location of the course had been changed during the spring semester of 1962. The town house in which the course had previously been located was to be torn down to make way for newer construction. The Special Intensive Language Course for the Blind had been moved to a nearby office building until such time as the new construction was completed. The second course continued in this office building. Five offices of approximately 250 square feet each, and all located on the ground floor at the end of the corridor, were divided as follows: one office served as the teachers' room, a second as the German classroom, and the three remaining offices as Russian classrooms. The laboratory booths were established in the classrooms themselves, with the exception of one classroom, which was designated as the student recreation area during the periods when the students were not in class. The piano and the various materials connected with the club activities were placed in this room.

The further details on the courses will be more easily presented separately, with one account covering the Russian course and another the German. These two accounts follow in that order.

RUSSIAN COURSE-INTRODUCTION

The second Russian course followed the general pattern of the first Russian course, which has already been discussed. This report on the second course will therefore confine itself to noting the new developments which characterized the second course.

SCHEDULE

The schedule for the work in the first year of the second course was the same as the schedule for the first year of the first course.

During the second year of the second course, because of the division of the students into a transcribers group and a teachers group, a new pattern of distribution was used. In the following table, column A represents the transcribers group, and column B the teachers group.

SCHEDULE, FALL, 1963

	A	B
Writing skills	2 hours	2 hours
Newspaper articles	9 hours	7 hours
History and geography	4 hours	4 hours
General vocabulary	1 hour	2 hours
Scientific Russian	2 hours	--
Russian syntax	1 hour	4 hours
Club activities	1 hour	1 hour

SCHEDULE, SPRING, 1964

	A	B
Writing skills	2 hours	2 hours
Newspaper articles	6 hours	6 hours
History and geography	4 hours	4 hours
General vocabulary	--	1 hour
Scientific Russian	2 hours	--
Russian syntax	1 hour	3 hours
Russian literature	2 hours	2 hours
Translation drill	2 hours	1 hour
Club activities	1 hour	1 hour

SCHEDULE, SUMMER 1964

	A	B
Writing skills	4 hours	4 hours
Newspaper articles	2 hours	2 hours
History and geography	2 hours	2 hours
Russian literature	2 hours	2 hours
Translation drill	2 hours	2 hours
Transcribing drill	3 hours	3 hours
Reading	2 hours	2 hours
Review	3 hours	3 hours

METHODOLOGY

The general pattern of classroom methodology of the first course was preserved in the second course. There was, however, an even stronger emphasis on a completely oral and completely Russian presentation. The twenty-four students who were studying Russian were divided into three groups of eight students each during the first year, and the classroom situation was arranged in the same general manner, with the students being rotated from one group to another at intervals of approximately one month.

During the second year, the students were divided into two groups depending on whether they were interested in training as transcribers or as teachers. After this juncture, it was no longer possible to move the students about freely from one group to another.

During the last semester of the second year, five of the students, who had definitely fallen behind, and who were slowing up the work of the others, were put into a group by themselves and given special work. The remainder of the students were distributed into two groups. Since most of the work during this semester was review work, it was no longer necessary to hold closely to the distinction between transcribers and teachers.

MATERIALS

The teaching materials employed in the second course were those of the first course, except that somewhat different emphases were given to different parts.

The number of introductory lessons was increased from five to nine, with more intense drilling on the verbal aspects and on the verbs of motion. After this introductory material, the first five lessons of the textbook were taken up during the fall semester, rather than the seven lessons which had been taken previously.

During the spring semester of 1963, the seven remaining lessons from Volume I of the textbook were presented, as well as two lessons from Volume II. Supplementary material from Potapova's book was again used, as well as ancillary materials prepared by the instructors themselves.

Writing drills were introduced in the spring semester of 1963. Because of the experience acquired during the first course, the students' acquisition of writing skills was faster and smoother than in the first course.

In the summer semester of 1963, the remaining lessons from Volume II of the textbook were taken up, with the exception of the last, the content of which was considered to be relatively unimportant.

The fall semester of 1963 was marked by the acquisition of a Thermoform machine. With this machine, Braille material could be easily and quickly duplicated for the students. It now became possible to have one of the blind assistant instructors prepare and thoroughly check a Braille master from which copies could be made to distribute to the classes.

Since the basic textbook was largely predicated upon situations which could be pictured, attempts were made to provide raised-line pictures for the students to use in class. Such pictures were useful to a limited extent, but were not basically successful for reasons which are discussed in the report of the third course where the discussions with Mr. Carl Rogers are described (page 122).

In order to bridge the large gap which had been found to exist between the textbook material used in the first year and the newspaper texts and literature which were used in the second year, additional material was prepared by the instructors. It had become evident in the first course that this transition was a great strain upon the students, and that the results of the examination at the end of the corresponding semester were the lowest for the whole course. The following procedure was adopted. The same newspaper materials were used as before, and again they were not edited or simplified in any way. However, each of the six articles used in this semester was prefaced by an introduction which presented, in somewhat simpler form, the content and some of the vocabulary of the original. By the time the student had worked through this preparatory material, he found it easier to work with the basic text.

The vocabulary drill in the second year of the first course had been centered around particular situations, and so had tended to provide the vocabulary in a somewhat unstructured manner. In particular, because of the tendency to attempt to exhaust the vocabulary of each situation, the students asked for, and the instructors provided, many items of vocabulary which were of limited usefulness. For the second course, the instructors culled through these vocabulary lists, and provided lists which gave greater weight and emphasis for the more useful items of vocabulary.

The lectures on history continued, but the period covered in the first semester was from the earliest times until the end of the Tartar occupation. The lectures in geography covered the same material as in the first course.

A section on scientific Russian was introduced for the benefit of the transcribers. The material covered such fields as biology, chemistry, electricity and aeronautics. The materials were drawn from the Small Soviet Encyclopedia, from the Anatomy of Man by N.G. Markov, from General Chemistry by B. V. Nekrasov, from General Physics by Sobelev, and from Russian Popular Science Texts by V. D. Korolyova.

While the transcribers were studying scientific Russian, the teachers were studying advanced grammar. The materials were based on texts by Potapova, Pulkina, and Vinogradov.

In the spring semester of 1964, some sixty articles from Soviet newspapers were introduced. The simplified lead-ins were no longer considered to be necessary, and the students worked directly with the original texts.

In history, the period from the end of the Tartar occupation till the end of the reign of Peter the Great was covered. The material in geography was much the same as in the first course, but had to be presented more slowly.

The work in science covered the fields of mathematics, the earth, the sun, the moon, and artificial satellites. The group in advanced grammar continued its work, concentrating chiefly on the forms of the verb and on prepositions and conjunctions.

Literature was introduced during this semester, and the materials were quite different from those used in the first course. All of the materials were short stories by Soviet authors:

N. Nosov	The Steps The Liars
V. Imber	The Destroyer The Submarine Surfaces

M. Prishvin	The Crane
	The Blue Dragonfly
	The Hedgehog
U. Nagibin	The Winter Oak
K. Paustovsky	The Thieving Cat

The work of the summer semester, 1964, was largely devoted to review. For review of Russian grammar, Practical Russian by G. Bogatova was used. For extra drill in translation, the Russian Area Reader by Fairbanks was used. A considerable amount of material from the Russian Braille magazine, The Life of the Blind, was also introduced. Tape recordings were made of original broadcasts in Russian, and these materials were worked into a series of graded tape recordings which the transcribers could use for practice.

More intensive drills in orthography and writing skills became necessary with this increased activity in transcription.

Some twenty articles from Soviet newspapers were used.

The history covered the period from the reign of Peter the Great until the death of Alexander the Second. The material in geography was the same as in the previous course, but the students completed, by the end of the summer semester, the amount of material which the students of the first course had completed by the end of the spring semester.

Only limited material in literature was introduced because of the fact that much of the time was devoted to review. The Boys by Chekhov and The Tunnel by Kataeu were used. However, an attempt was made to have the students read a number of other literary works, even though they did not study them in detail.

EXAMINATIONS

During the second course achievement tests were given every two weeks rather than at the end of a particular segment of the work, as in the first course. This change was made, not because a system of regular examinations seemed more desirable, but because the caliber of the students in the second course was not so high as that of the students in the first course, and it seemed advisable to apply pressure in order to induce them to work.

The final examinations in the various semesters followed much the same pattern as in the previous course.

FALL, 1962 - ORAL EXAMINATION

a) Fifty vocabulary items (25%)
b) Five structural exercises (10%)
c) Two sentences to be translated from Russian to English (5%)
d) Two sentences to be translated from English to Russian (5%)
e) One free rendition of one of the five narratives from the lessons of the basic textbook (25%)
f) Ten questions and answers (10%)
g) One prepared story (20%)

Fourteen students received a grade of A, four received a grade of B, and four received a grade of C. The average for the group was a grade of B plus, almost A.

SPRING, 1963 - WRITTEN EXAMINATION

a) Dictation (10%)

- ORAL EXAMINATION

a) one prepared story (30%)

b) One unprepared story (20%)
c) Ten questions to be answered in Russian (10%)
d) Two sentences to be translated from Russian to English and three sentences to be translated from English to Russian (15%)
e) Five structural exercises (15%)

Ten students received a grade of A, four received a grade of B, five received a grade of C, and one received a grade of D. The average for the group was a grade of B.

SUMMER, 1963 - WRITTEN EXAMINATION

a) A brief composition (5%)
b) A dictation (5%)

- ORAL EXAMINATION

a) A prepared story (30%)
b) An unprepared story (20%)
c) Ten questions based on above stories (25%)
d) Ten structural exercises (15%)

Ten students received a grade of A, three received a grade of B, four received a grade of C, and two received a grade of D. The average for the group was a grade of B.

The achievement tests which had been given every two weeks during the first year were dropped during the second year. Instead, the instructors evaluated each student's performance every two weeks. It was felt by the instructors that this system presented a fairer impression of individual progress than the system of set examinations could provide.

FALL, 1963 - WRITTEN EXAMINATIONS

a) A composition (10%)

- ORAL EXAMINATION

a) A prepared story (20%)
b) A report on a topic in history or geography, the topic being chosen by the student (20%)
c) Ten questions on science and social studies for transcribers' group (25%)
Ten questions on everyday situations for teachers' group (25%)
d) Five sentences to be translated from Russian to English, and five sentences to be translated from English to Russian for transcribers' group (25%)
Ten grammatical explanations to be given in Russian for teachers' group (25%)

Eleven students received a grade of A, five received a grade of B, three received a grade of C, two received a grade of D, and one received a failing grade. The average for the group was a grade of B.

SPRING, 1964 - WRITTEN EXAMINATION

a) A composition (10%)

- ORAL EXAMINATION

a) Narration of new material read twice by the examiners to the student (60%)
b) Three sentences to be translated from English to Russian, and three from Russian to English (for the teachers' group, one sentence of each variety was replaced by a complex structural exercise.) (30%)

Fourteen of the students received a grade of A, two received a grade of B, two received a grade of C, one received a grade of D, and one received a failing grade. The average for the group was a grade of B.

SUMMER, 1964 - WRITTEN EXAMINATION

a) A composition in one of the special lectures (10%)

- ORAL EXAMINATION

a) Narration of two short articles chosen at random from Soviet newspapers (30%)
b) Oral critique of a character, situation or event from Russian literature (30%)
c) Discussion of oral critique (30%)

Nine of the students received a grade of A, five received a grade of B, three received a grade of C, two received a grade of D, and one received a failing grade. The average for the group was a grade of B minus.

SEMINARS

HONOR SEMINAR

Certain of the abler students complained during the first semester that the work was not sufficient to challenge their full capacities. To meet this situation, an honor seminar was created for the spring semester of 1963.

This seminar met once every week for two hours after regular classes. Only students who maintained a grade A average were eligible for the seminar. All eligible students who volunteered to take the seminar were expected to be regular in attendance, and an unexcused absence automatically eliminated the absentee from the seminar. No special credit was given for this work, and the grade received in the seminar did not affect the grade received in the regular course.

The subject matter for the seminar consisted of a short story, The Boys, and a one-act play, The Wedding, both by Chekhov.

Ten students volunteered for the seminar. Four were soon eliminated because of low grades, and one dropped out voluntarily, because of the pressure of the work.

The complaints that the work was not sufficiently demanding were not renewed, and the honors seminar was discontinued at the end of the spring semester.

INSTRUCTORS' SEMINAR

Three of the students of the first course were retained as assistants in instruction for the second course. These assistants not only taught, but also continued their study of Russian in a special instructors' seminar.

The seminar was conducted for one hour on each of the five days of the week. Three of these hours were devoted to a study of the structure of the Russian language on the most advanced level. The textbook was The Grammar of the Russian Language, published by the Institute for the Russian Language of the Academy of Sciences of the Soviet Union. One hour in the week was devoted to a survey of Russian literature. The remaining hour was used alternately for conversation practice and for translation.

The seminar began with the beginning of the second course in the fall of 1962, and continued through until the end of the spring semester of 1964.

The three assistants in instruction were meanwhile taking regular courses either at Georgetown University or at George Washington University. Two of them completed the work for the Master of Science in Russian at Georgetown University, while the third earned the Bachelor of Arts degree from George Washington University.

SEMINAR ON TEACHING TECHNIQUES FOR THE BLIND TEACHER

In the fall semester of 1963, Miss Mari Bull, a blind language teacher with many years of experience teaching sighted students, gave a seminar on the blind person as a language teacher for the three assistants in instruction who had been students during the first course.

The following topics were covered: job hunting, teacher-administrator relations, teacher-parent relations, teacher-student relations, finding and training sighted assistants, the use of the blackboard and substitutes for the blackboard, the use of visual aids, disciplinary problems including cheating, the blind teacher's personal appearance, the advantages and disadvantages of newspaper publicity, and miscellaneous minor topics.

DISCIPLINE AND WELL-BEING

The disciplinary problems with this group of students were more numerous than with the previous group. It became necessary during the second year to introduce a series of progressive heavy penalties for unexcused absences. Individual students had to be reprimanded for conduct which may very probably have been closely connected with the state of their physical and mental health; the teachers found that there were much greater demands on their time for purely personal problems, and this group of students as a whole seemed less mature and more dependent than those in the first course.

One of the students, the victim of an eye condition which caused him severe pain, was forced to withdraw from the course during the first semester. He returned after an absence of almost one year, and worked very hard trying to catch up; the instructors, particularly Mr. Myschenkoff, devoted a considerable amount of extra time to helping him. While his Russian improved considerably during the last year, it never achieved a level where he could be examined on the same basis as the other students. Two other students dropped the course in the second semester for personal reasons and returned to their home states. A fourth student began to show signs of emotional disturbance. This disturbance continued and increased until it became necessary for the student to quit the course.

One particular problem which arose was that of the students marrying each other. Two weddings actually took place and others seemed likely. The whole effect was unsettling, particularly for those who contracted marriage, and most particularly for the brides who were shortly busy caring for their babies and so could not concentrate adequately on their course work. It would undoubtedly have been better to have tried to ensure for the students a wider circle of acquaintances, and not to have had them thrown so much into each other's company, but this difficulty was not foreseen by those in charge of the course.

ACTIVITIES

The Russian Club, which had proved so successful during the first course, was continued along the same lines during the second course.

During the summer semester of 1963, a special examination was organized, in which four of the students of the second course and four students of the Naval Language School at Anacostia, selected on the basis of their having achieved the same level in Russian studies, were examined by academically qualified native speakers of Russian who did not teach in either course.

The ratings awarded to the students in this examination tended to favor the blind students. The best student of the group was a blind student, while the student who achieved the lowest grade was sighted. The remaining six students were all of approximately the same caliber, with the blind students having a better pronunciation and the sighted students a greater degree of fluency. The blind students proved superior to the sighted students on the written part of the examination, a fact which is the more remarkable because the blind students had been studying written Russian for less than half as long as the sighted students.

The blind students demonstrated that their blindness is no handicap to learning a foreign language.

In this summer session also, Mrs. Baydalakoff entertained the students at the now traditional garden party.

During the second year a series of lectures by native speakers of Russian from the Washington community was again given. The titles included Dostoyevsky and Christianity, Youth in the Soviet Union, Women Who Have Ruled in Russia, The Impact of Peter the Great, The Nationalities of the Soviet Union, The Civil War in Russia, The Decembrists, History of the Russian Language, The New Generation of Poets in the USSR, Russo-American Relations During the American Revolution, Impressions from a Recent Trip to the Soviet Union, and The Organization of the Soviet Army.

In the spring semester of 1964, work was begun on the Brailling of Smirnitzky's Russian-English Dictionary. This work was concluded during the summer semester. Three copies of the dictionary were produced by Thermoform from the master pages prepared by the students and staff of the course. Each copy, when bound, comprised a set of thirty-four volumes. The three sets were allocated to interested government agencies, the master set being retained at Georgetown University.

At the end of the course, graduation exercises were held and a reception given for the students and their friends by Georgetown University.

THE INTENSIVE GERMAN LANGUAGE COURSE (FOR THE BLIND) 1962-1964

The two-year course in German began in September 1962. As originally conceived, ten of the thirty students accepted for Intensive Language Training would study German; however, only six declared an interest in the language, and no attempt was made to induce any of the others to take it. As it turned out, six was initially just the right number for one teacher to handle, considering the materials—or rather, the lack of materials on hand—and the manner in which classes were conducted. Later, because of differences in interest and motivation, and because of the expansion in training goals to include teacher-training as well as transcriber-training, even six students became rather difficult for one teacher, and it was necessary to employ an assistant.

Three of the six students had had some German previously; the others had no knowledge of the language at all. Four of these students completed all six semesters of the course, and two received certificates of completion for five semesters only.

TEACHING MATERIALS

There was a lack of teaching materials at the outset. Nothing was available in Braille. The only reasonably suitable printed material was the introductory text in use at the Institute of Languages and Linguistics of Georgetown University; this was Deutsch Erstes Buch by Hugo Mueller. It proved inadequate for introductory work. Mrs. Christoff, therefore had to fall back upon other resources: the materials used in the first two months of the course were materials which Mrs. Christoff had prepared herself or had adapted from the German manual used at the Language School of the Foreign Service Institute of the State Department. Gradually the material from Mueller was introduced until it became the only material being used. The Mueller text was completed by the end of the third semester (summer 1963).

(See the Typical Lesson, page 74 .) During the second year of the course (semesters 4 - 6) introductory texts to the subjects being studied (history, geography, literature, science, grammar) were used. Material taken from those books was presented by lecture and by tape recording. The major source for newspaper articles was Die Welt which came by airmail, but interesting and informative articles were selected from other newspapers as well, including one published expressly for students learning German. This newspaper was accompanied by a recording of two of its articles. The intermediate text in use at the Institute of Languages and Linguistics, Mueller's Deutsch Zweites Buch, was also used.

Most of the drills, exercises and texts used by the students during laboratory hours and outside of class were recorded specially on tapes by the teaching staff. Plans to teach the Mueller books using the tapes already recorded and used by the Georgetown German Language Department, had to be abandoned, since these tapes were recorded for sighted students who could follow along in their books while listening. In addition the tapes were artificially slow. From the very beginning, all teaching in this course was carried on at normal speaking speed. The students never had trouble understanding the instructors or other Germans who spoke at normal speed, but they had difficulty following and understanding too-carefully articulated or slowed-down speech. This problem showed up also at several semester tests where the testing instructor spoke rather slowly.

To remedy the lack of Braille material, books were ordered from Germany, including a German-English, English-German dictionary, from the "Blindenstudienanstalt" in Marburg. It proved, however, that most of the books were printed in "deutsche Blindenkurzschrift," or Grade II German Braille, whish is, of course, unlike Grade II English Braille. The first enthusiasm at receiving Braille books was dampened by the realization that the students were unable to use them. The greatest disappointment was in not being able to use the dictionary. The students had been filling out (in Grade I) their own vocabulary cards and had expected that a dictionary would eliminate the need for this and provide a "Wortschatz" otherwise unavailable to blind persons. Manuals were subsequently ordered explaining the "Kurzschrift" (Grade II Braille), but it proved impractical to spend classtime on learning the system; some of the students were very slow readers, even of English Braille; the manuals were distributed to the students who were asked to work on their own. Two of the students eventually learned the system quite well, one other fairly well, since he had difficulty with content, but the remaining two had considerable difficulty. (The sixth student, being partially sighted, could read print). These various difficulties prevented any extensive or profitable use of Braille material in the course.

The course also received from Germany a weekly political magazine (again in Grade II) which the students were encouraged to read for practice and information. Braille relief maps of Germany were also obtained from Marburg. These were framed and hung in places easily accessible to the students, and were used primarily in the geography and history sessions.

TEACHING AIDS

One very important and useful teaching aid was a Playskool model village which the students set up during German Club. The use of such a village had been found convenient in teaching sighted persons; it was invaluable in teaching blind persons such structures as the German locational and directional prepositions. Later a model home using toy furniture was also constructed.

The most commonly used teaching aids were the following:

1) Relief-Maps of Germany (made by Blindenstudienanstalt Marburg, Germany)

"Das Relief Mitteleuropas"

Teil I : Nordeseeküstengebiet
Teil II : Ostseeküstengebiet
Teil III: Rheinisches Schiefergebirge
und
Mitteldeutsches Gebirgsland

Beikarte zu Teil III

Teil V : Süddeutschland

Beikarte zu Teil V

2) Model City

3) Model Room with Furniture

4) Marks Script Guide

5) Sewell Raised Line Drawing Kit

6) Marburger Linientafel

METHODOLOGY

CLASSROOM ARRANGEMENTS

Having taught only sighted people, the instructor was used to gesturing to indicate whether only an individual or everybody was to repeat. This, of course, did not work with blind students, but it proved sufficient to indicate with words ("alle", everyone; "einzeln", individually) to obtain the desired results. In place of a shake of the head to indicate an unsatisfactory response, the instructor substituted a special sound. The students sat in a semi-circle. The instructor stood, and had only to turn her head in the direction of the student she wanted to address.

ORAL WORK

During the first year and especially during the first semester, classroom work centered on the sounds and basic patterns of German. The plan, developed for the introductory units and used later with the Mueller book, was as follows. Each unit consisted of 3-5 parts:

1) basic sentences with new vocabulary and build-ups
2) substitution drills
3) variation, transformation or verb drills
4) conversation drills
5) pronunciation drills

Each unit consisted of a set of basic sentences in the form of a dialogue based on a specific situation. First, the new vocabulary items were presented. Next, each sentence in the dialogue was practiced (in sequence); long sentences were broken down into manageable units and then built up again from the end to the beginning. Each word and each sentence was mimicked by the students, first in chorus and then individually, until it was felt that their imitation was satisfactory enough to proceed to the next item.

After acceptable imitation and accurate pronunciation were achieved the dialogue as a whole was assigned to be memorized with the help of tapes, outside of class. As the final step the students were expected to be able to act out the dialogue with the instructors and with each other from memory.

In the substitution drills the model sentence (one of the basic sentences) and all its variants were first repeated in chorus after the teacher, after which each student was cued individually with an item to be substituted. He then repeated the sentence with the substitution called for. The student's task was to make the substitution without hesitation at normal conversational speed.

The substitution drills were followed by variation or transformation or verb drills. The basic procedure remained the same as in the substitution drills.

In conversation practice the instructor read through a brief conversation, usually on the same theme as the basic dialogue, three or four times while the students listened. Then the instructor took one role, a student took the other, and they acted out the conversation together. After acting it out with the instructor, the student went through it again with another student, the latter in turn with the next stusent and so on until everybody had taken both parts of the dialogue. The aim here was not to memorize and repeat the sentences exactly as they were read, but to respond to the situation as accurately and suitably as possible in the students' own words.

Much stress was put on correct pronunciation, and much attention was paid to mastering the German ich and ach sounds and the German r and l. The German vowels also presented difficulties, especially the front rounded vowels /ö/ and /ü/, which do not occur in English. All new sounds were practiced first in one-syllable words thus minimizing other pronunciation difficulties. Practice, and a few linguistic tricks (e.g. "to say ü as in müssen, say missen. Now round your lips and say it") was the key to mastery.

The use of English was kept to an absolute minimum. In presenting a new unit, the instructor gave the English equivalent of each word (e.g. die Mutter, mother) and sentences (e.g. Wie heissen Sie denn? - What's your name?), as they were introduced. With the sentences, the instructor gave the general sense or the idiomatic English equivalent, rather than a word-for-word translation. Had the necessary materials existed, the students would have been able to read these meanings for themselves without the instructor's having to give them. As a check on comprehension, the students were occasionally asked to be able to give either the German or English equivalents upon being cued in the other language.

Although no English equivalents were normally given in the drills, the instructor sometimes spot-checked by asking for English translations.

Later, when the students had acquired a large enough vocabulary, the instructor was often able to explain a new word, phrase or sentence by giving another German word or by paraphrasing in German. English was used to explain grammar when German examples of the points in question were not adequate. It was also used to summarize the point of all"my" examples.

The ultimate goal of the course was that the student be able to speak accurately, fluently, and easily. The text of the basic sentences provided for the assimilation of all basic forms and patterns of the language by the guided imitation, memorization, and manipulation of a large number of sentences, and by practice in confronting many commonly occurring everyday situations.

From the start the students were encouraged to use the language in every way possible above and beyond what was provided for in the text. The instructors carried

German outside this classroom. On several occasions instructors and students all had lunch at a German restaurant. The conversation was "auf Deutsch" and centered on German foods, eating habits and customs, but also covered other things. Informally, the instructor also took the students shopping (in small groups or sometimes individually) during lunch breaks, sometimes to a little German grocery store and at other times to a department store, giving indications and explanations in German.

Since there was a tendency to fall back into English once in a while, the instructor suggested (and the students eagerly agreed to) the use of a penny bank for fines. For each lapse into English during class hours, the student was fined a penny. They watched themselves carefully then, and watched each other even more carefully ! The money collected in this manner, together with the dues for the German Club (10 cents weekly) helped to finance birthday presents or cokes for the members of the class.

During the free conversation periods the instructor distributed among the students little cards upon which were Brailled situation topics, for example "Sie sind in der Stadt. Sie treffen Herrn Mueller und fragen ihn, wie es ihm geht, was er vorhat und ob er mit Ihnen essen gehen will" ("You are in the city. You meet Mr. Mueller and ask him how he is, what he has planned, and whether he would like to dine with you"). The student getting this topic would choose his partner (sometimes the instructor assigned partners) and would start the conversation going. The conversation time was kept short in order to keep the other students from becoming bored. Sometimes it was possible to bring one or two of the other students into the conversation.

WRITTEN WORK

Dictation was introduced in the first-year program after the typewriters, equipped with a German keyboard, became available in early December 1962. The students already knew how to spell many words; early in the course they had learned the alphabet in German and the instructor spelled words from the units, noting which letters represent which sounds. At the very beginning of the writing classes, the students concentrated on learning the sounds and patterns of German spelling to diminish confusion between the English spelling and the German. By the time dictation was begun most of the students could guess at the spelling of a given word fairly well, those words whose spellings are unpredictable from the sound had to be learned by rote. The students were required to write a short theme weekly. These themes were based on a lesson already covered. In addition, the students were encouraged to transcribe their tapes for practice. This gave additional writing and listening comprehension practice.

SPECIAL SUBJECTS

In the second year work continued on pronunciation, structure and grammar, but around a core of specific topics rather than dialogue situations.

GEOGRAPHY

Geography dealt with the different states (Länder) in Germany, their people, customs, industry, and so forth. Using the relief maps of Germany, obtained from Marburg, the students took turns giving reports. For example, the instructor might give a lecture on Bavaria. The students would take notes, ask whatever questions they wished, and, at the end of the lecture, be given a tape on which the instructor had recorded more information on Bavaria. Two or three days later the same subject would be covered again. When they first started these reports the instructor had the students ask each other questions, but soon had to change this method, since some students were quicker than others, and managed to ask most of the questions. Later, the lectures were done away with entirely and all material was taped. The instructor then had the students take individual topics and retell them in class. They had to make note of each others' mistakes. A taperecorder was sometimes used, and after a student had given his report we replayed the tape and discussed the report and the mistakes.

HISTORY

German history began with the "Völkerwanderung und Entstehung des deutschen Reiches." Little anecdotes about famous people were added for interest and were well received. In general, the same classroom procedure was followed in history as in geography.

CURRENT EVENTS

Newspaper articles began with simple reports, such as accident reports, travel reports and the weather news, and gradually developed to political reports and editorials in the fifth and sixth semesters. Editorials were sometimes given on tapes. All other newspaper articles were read in class, usually twice. One student was then asked to tell back what he had understood. Then the new vocabulary was reviewed with the class and the article read once more. Next, another student was asked to tell the story back, this time using the new vocabulary. Two or three short articles were usually covered in one hour. For homework, the students had to write a report on one of the articles. Sometimes students were asked to listen to the news on the radio and then to give a report the next day. These articles and reports also served as springboards for discussion. To vary the format of the newspaper hours, the instructor sometimes organized debates in which the class was divided into two groups, an article was read aloud, and the groups required to debate the pros and cons. Once each student was required to give a fifteen minute lecture on a provoking subject of his own choosing; some of these discussions got quite heated.

LITERATURE

Literature was handled by recording modern short stories on tape. Preparation by listening to these stories was assigned to the students as homework. In class, they were asked to give a synopsis, and then to discuss the material, reviewing the ideas in the story, the behavior of the characters, the rationale for that behavior, and so on. The students discussed the authors' style, the idioms and expressions he used, and the finer grammatical points.

GRAMMAR

Grammar continued with exercises and drills and attempted to cover some of the finer points of German structure.

TRANSCRIBERS' GROUP

When, in the fifth semester, it was decided to offer those students interested in becoming translators or transcribers class work along these lines, science and translation were introduced as subjects. The three students in this group were acquainted with scientific terminology and given special drills in translating newspaper articles from English to German and German to English. They were given taped news material to listen to and to transcribe. Transcribing became quite a skill for some students, others did not like it at all. The first recordings were made by the instructor, speaking at normal speed and reading newspaper articles. Later the students were supplied with tapes having different voices, plus extraneous noises which would make transcribing more difficult. Still later the instructor recorded news directly from overseas programs and transcribing this required considerable skill.

All of the students later had an opportunity to take a transcription test administered by a government agency interested in employing transcribers.

TEACHERS' GROUP

The Teachers' Group had advanced grammar and everyday expressions while the others were having transcription. They also had an hour of translation, and during this hour with the translator group an interpreter situation was created. The German assistant instructor would pretend to know no English, a Russian assistant instructor would pretend to know no German; these two acted as the subjects for "interviews." One group of students acted as interviewers who did not know the subjects' language, the second group acted as the interpreters. The students enjoyed this kind of work.

DICTATION

Work in dictation continued. The texts for these second year dictations were often newspaper articles which the students had already had in class. The new words were spelled out first, and then the text was read for dictation. After the fourth semester it became necessary to divide the class for dictation periods, since two students were much slower than the rest and needed more help. The assistant instructor took one class while the instructor took the other, alternating every hour. The memory span of two of the students was remarkable. These students were able to write sentences of about twenty words which they had heard twice without leaving one word out. On the other hand, one student was not able to concentrate at all during dictations and could not keep more than two words in mind. Spelling presented the same situation. For some students it was only necessary to spell a new word once and once only; others had to be told each time. It was discovered later that one student in particular was also a very poor English speller.

READING

In reading the students read assigned pages in class. It now seems that more stress should have been put on reading aloud in class right from the beginning. Three of the students did quite well, but two, (blinded at the ages of 17 and 21) were not able to follow the pace of the others. It was not possible to take too much time from the good readers and so the instructor tried to work with the poor readers in her spare time. The result was that the better students were given extra reading and writing while the others did only the assigned work.

SPECIAL LECTURES

Once a week during the second year a speaker was invited to talk to the students on a particular topic.

This gave the student an opportunity to hear other voices and dialects, to test their comprehension, and to practise their German by asking questions and by writing themes on the talk. For their part, the guests were surprised and delighted by the students' interest and by their command of German.

VISITING GUEST SPEAKERS

A list of the guest speakers and their topics is given to indicate the variety and complexity of the lectures. The lectures were given in German, even though the titles are cited here in English.

James C. Bostain, Linguist, Foreign Service Language School, Department of State:
Topic: Language and Language Teaching

Dr. W. Seiferth, Howard University, German Department
Topic: Ballads of Goethe

Mrs. Maria Wilhelm, Defense Language School
Topic: The Language Program at DLI

Dr. Fritz Frauchiger, Linguist, Assistant Dean for Overseas Programs, Foreign Service Institute
Topic: The FSI Language School in Frankfurt, Germany

Prof. Helen Brower, Georgetown University, German Department
Topic: Austria

Prof. Helen Brower, Georgetown University, German Department
Topic: Hugo von Hoffmannsthal

Mr. G. Bode, German Instructor at DLI Language School
Topic: Life in Germany before, during, and after the war

Prof. Anton Lange, Georgetown University, German Department
Topic: Oberammergauer Passion Plays

Prof. Herta Mueller, Georgetown University, German Department
Topic: Goethe: "Die Leiden des jungen Werthers"

Prof. Herta Mueller, Georgetown University, German Department
Topic: "Gruppe 47"

Dr. Stefan Horn, Georgetown University
Topic: The Interpreter

Dr. Alfred Obernberger, Georgetown University, German Department
Topic: German Dialects

Prof. Reinhold Hoffmann, Georgetown University, German Department
Topic: Lessing: "Nathan der Weise"

Prof. A. von Ihering, Georgetown University, German Department
Topic: The Author Erich Kästner

Mr. Heinz Sklarzik, Principal, German School, Arlington, Va.
Topic: The German Schools in Foreign Countries

Mr. Friedrich Lehmann, German Instructor, FSI Language School
Topic: Rubens - his life and his work

Dr. Gisela Gundell, second cultural attaché, German Embassy
Topic: Schools and Universities in Germany

Dr. Hugo Mueller, Department of Language and Linguistics, American University
Topic: German contemporary literature

Mr. Hartmann Dignowity, industrial consultant, formerly with HEW and Herkules Co.
Topic: A trip around the world

Dr. K. Jankowsky, Georgetown University, Chairman, German Department
Topic: Teaching German in India

CLASS SCHEDULE, FIRST YEAR

	Monday	Tuesday	Wednesday	Thursday	Friday
9- 9:50	Basic Sentences	Basic Sentences	Basic Sentences	Basic Sentences	Basic Sentences
10-10:50	Conversation (working with model city)	Drills	Drills	Conversation Practice	Drills
11-11:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
1- 1:50	Drills	Conversation Practice	Dictation	Drills	Reading
2- 2:50	Dictation	Drills	Basic Sentences	Writing of Basic Sentences	German Club
3- 3:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory

CLASS SCHEDULE, SECOND YEAR (4th and 5th semesters) TEACHERS GROUP

9- 9:50	Seminar	Grammar	Literature	Everyday Expressions	Literature
10-10:50	Seminar	Newspaper	Literature	Grammar	Grammar
11-11:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
1- 1:50	Newspaper	Geography or History	Newspaper	Lecture (guest)	Dictation
2- 2:50	Newspaper	Newspaper	Translation, and Interpretation	German Club	Dictation
3- 3:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory

CLASS SCHEDULE, SECOND YEAR (4th and 5th semester) TRANSLATORS GROUP

	Monday	Tuesday	Wednesday	Thursday	Friday
9- 9:50	Seminar	Translation	Literature	Science	Literature
10-10:50	Seminar	Newspaper	Literature	Science	Grammar
11-11:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
1- 1:50	Newspaper	Geography or History	Newspaper	Lecture (guest)	Dictation
2- 2:50	Newspaper	Newspaper	Translation	German Club	Dictation
3- 3:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory

CLASS SCHEDULE, SECOND YEAR (6th semester)

9- 9:50	Discussion of Written (Home-work)	Seminar	Grammar	Dictation	Transcribing
10-10:50	Reading	Seminar	Newspaper	Theme	Newspaper
11-11:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
1- 1:50	Transcribing	Reading	Transcribing	Literature	Grammar
2- 2:50	Grammar	Discussion	Lecture (guest)	Literature	Translation
3- 3:50	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory

ACTIVITIES

A German Club was organized. The presidency rotated among the class members each semester. Once a week (usually on Friday from two to three in the afternoon) club meetings were held, and it was during this time that the students learned German songs, and played German games. The class was fortunate in having a student of music as one of its members. She enthusiastically formed and directed the German choir which performed at the group's first summer garden party, held at the home of one of the Russian instructors and at the Christmas programs which were presented.

For the first Christmas party one of the students wrote an original Christmas playlet which was presented to the Russian students and faculty and to the guests of the group's Christmas party. The students were proud to be able to do something like this after such a short period of study in the language. The play turned out to be a great success, as did the second Christmas presentation "Kleines Weihnachtsspiel für die Famile" by Johanna Heise-Möricke, to which the students invited the Russian group, members of the Georgetown faculty, personnel from HEW, and other friends. The students improvised their own costumes and made their own decorations - and reveled in the praise afterwards!

The class made two official trips, one to the German Embassy, where they saw a scale model of the Embassy and learned a bit about what work goes on there, and the other to a German School where children are instructed in German as well as in English. The class was enthusiastic about these trips.

EXAMINATIONS

An achievement test was given every two weeks, throughout the first year. The nature of each test varied according to the emphasis and difficulty of the material covered during the preceding two week period; it tested vocabulary, grammar, listening comprehension. On occasion the students were asked to retell in their own words a story read to them, or to prepare one to tell. Discussions and translations based on the material taken up in class were also required.

During the second year no achievement tests were given. As a substitute the students' homework was graded. At the end of every semester there was a final examination, written by the instructor but administered by a professor from the Institute of Languages and Linguistics. The oral section lasted approximately forty-five minutes for each student, the written test one hour. The format varied from semester to semester.

The students demonstrated a good knowledge of German in the examination at the end of the 6th semester. Two students earned a grade of A, one a B, one a C and one a D. After the examinations the students received their certificates at the final exercises. The best German student gave a speech in German and, among other speakers, Dr. Gisela Gündell, second cultural attache of the German Embassy spoke and gave to each of the German students a German record as a present from the German Federal Republic. (See the Typical Examination, page 81.)

DISCIPLINE AND HEALTH

The morale in the German class was on the whole excellent from the very beginning; and, for the most part, the students were very dependable and responsible. One student was in charge of making the students' copies of the master-tapes, and another was in charge of the tape library. In addition to the master tapes, which were never lent out, one extra tape was kept on hand in the library for review and backchecking; and the students' tapes were erased and reused.

As with any group, however, the degrees of motivation varied. Some students worked hard, others tried to get by with a minimum of work or less. For example, once the class began transcribing the lessons into Braille, some students did not listen to the tapes further, or try to memorize the basic sentences thoroughly, feeling no need to learn the material from tape since they now had it in their books. Some students did the minimum amount of writing, others turned in more. Some turned in assignments promptly, others were constantly behind in their work.

It was necessary to be very strict, and to require dependability on the part of the students. The initial tendency to be lenient with the students because of their blindness proved to be a mistake. Above all, the students wanted to be treated like sighted people. A few took advantage of the instructor's time when they saw that the instructor made herself available at any time. On the whole, though, they did not like favors. They wanted to be looked upon as people without a handicap.

Owing to the fact that the instructor's office was off the classroom she could observe the students at any time. In a way this was an advantage; the classroom was always kept neat and clean. The instructor saw to it that the students kept their study periods for study and that the classroom did not become a social center. Of course the constant supervision also had its disadvantages. The students felt free to come to the instructor at any time and it was impossible to set certain office hours. For this reason it was necessary to make all tape recordings and preparations for drill materials at home and in the evenings, after regular study hours were completed. Even so, some of the students felt free to telephone at all hours of the evening for consultation or for companionship. It became increasingly difficult for the instructor to do everything by herself, to plan, to prepare and write lessons, to make tapes, to tutor the problem students or those who had been ill, and, later, to maintain a "translators" group and a "teachers" group. Accordingly, in the second semester, an assistant was employed. Unfortunately the first assistant was as young as, or younger than, most of the class and had trouble maintaining discipline. In the fourth semester a new assistant was employed. There was the same difficulty at first, but the new assistant was male and of sterner stuff. In addition to easing the instructor's work-load, the assistants provided the students with a chance to hear other voices and accents.

There were problems, also, which were connected with the health and well-being of the students. Many of these were problems which even nine years of teaching had not equipped the teacher to handle. One student fell asleep as soon as she was not actively taking part in a conversation or drill. Everything was tried. The instructor sent her to a doctor, had her stand in class (but she could sleep even while standing!) had the other students prod her to keep her awake and, in desperation, tied a string around her wrist and held the other end to tug on when she showed signs of dozing off. She took it with humor. At first, this falling asleep was treated as a joke, but in time it irritated both the instructor and the other students, since it was so disruptive. This student did very well in conversations, but very poorly on drills and tests, and finally she left after the 5th semester. One other student had a number of personal problems resulting from alcoholism and these affected his learning and at times disrupted the class.

A TYPICAL LESSON

The following lesson will serve to show the pattern of the material and of its presentation.

GERMAN LESSON V

BASIC SENTENCES

A:	Guten Tag, Fräulein Meyer	Good day, Miss Meyer.
	her	
	denn her	
	kommen	
	Wo kommen Sie denn her?	Where have you been?
B:	Guten Tag, Herr Müller.	Good day, Mr. Müller.
	aus Berlin	
	gerade	
	gerade aus Berlin	
	ich komme	
	Ich komme gerade aus Berlin.	I have just come from Berlin.
	bleiben	
	wie lange	
A:	Wie lange bleiben Sie hier?	How long are you staying here?
	acht Tage	
	wahrscheinlich	
	wahrscheinlich acht Tage	
	ich bleibe	
B:	Ich bleibe wahrscheinlich acht Tage hier.	I will probably stay here a week.
	hin	
	dann hin	
	Sie fahren	

A:	Und wo fahren Sie dann hin? ich fahre nach München ich fahre nach München	And then where are you going?
B:	Dann fahre ich nach München. mitfahren sie fährt mit	Then I'm going to Munich.
A:	Fährt Fräulein Werner mit? sie bleibt	Is Miss Werner going along?
B:	Nein, sie bleibt hier.	No, she is staying here.

PRONUNCIATION DRILL

1. The offglide (ə) at the end of her, hier
   her wer der mehr Teer
   hier wir dir mir Tier

   Exercise: Er ist hier.
   Es ist vier Uhr.
   Es geht mir sehr gut.
   Wir haben hier Papier.

2. The sound (ə) in the following words:
   Werner Schwester
   besser Butter
   Wetter Hunger
   Peter

   Exercise: Hast du Hunger?
   Essen Sie lieber besser!
   Peter und Dieter haben Hunger.

3. /Y/, the sound spelled ü as in Müller, München

missen	müssen
Kissen	Küssen
binde	Bünde
Kiste	Küste

/yː/, the sound spelled ü as in für, Tür

vier	für
Tier	Tür
Kiel	Kühl
liegen	lügen

Exercise: In der Kürze liegt die Würze.
In Hülle und Fülle
Überfluss bringt Überdruss.
Hüben und drüben.
Es grünt und blünt.
Die Sünde sühnen.
Wütende Stürme.

SUBSTITUTION DRILL

1. Ich komme gerade aus Berlin.
Bonn
Stuttgart
Hamburg
München
Bremen
Heidelberg
Amerika
Deutschland

2. Ich bleibe wahrscheinlich acht Tage hier.
vier
sieben
zwölf
zwei
fünf

3. Er fährt dann nach München.
nicht
heute
gerade
auch
wahrscheinlich
auch nicht

SUBSTITUTION-CORRELATION DRILL

1. Wo kommen Sie denn her?
er
sie (pl.)
Herr und Frau Schneider
Fräulein Müller
der Professor
sie (sing.)
die Studenten
du

2. Ich komme gerade aus Berlin
er
wir
sie (pl.)
Fräulein Meyer
Frau Müller
Herr und Frau Schneider
Herr Jäger und Herr Meyer

3. Wie lange bleiben Sie hier?
er
wir
sie (sing.)
du
die Studenten

4. Wo fahren Sie hin?
wir
er
sie (pl.)
du
Herr und Frau Schneider
sie (sing.)
der Professor
die Studenten

5. Fährt Fräulein Werner mit?
Herr und Frau Schneider
Herr Meyer
der Professor
sie (sing.)
er
du
Sie
die Studenten

TRANSFORMATION DRILL

Ich komme aus Berlin	Ich fahre nach Berlin
Er kommt aus Wein.	Ich fahre nach Wien.
Wir kommen aus Deutschland.	Wir fahren nach Deutschland.
Herr Meyer kommt aus Stuttgart.	Herr Meyer fährt nach Stuttgart.
Die Studenten kommen aus Amerika.	Die Studenten fahren nach Amerika.
Kommt sie aus Berlin?	Fährt sie nach Berlin?
Wann kommt sie aus Bonn?	Wann fährt sie nach Bonn?

PROGRESSIVE SUBSTITUTION-CORRELATION DRILL

Dann fahre ich nach Munchen.	Ich bleibe wahrscheinlich acht Tage hier.
Heute	Wir . . . .
. . . . wir	. . . . in München.
. . . . Berlin	Er . . . .
Morgen	. . . . . auch . . . . .
. . . . sie	. . . . zwei Tage .
Wann . . . . ?	Wer . . . . ?

VOCABULARY DRILL

kommen	**to come**
Ich komme gerade aus Berlin.	I've just come from Berlin.
Er kommt heute nicht.	He isn't coming today.
Kommt sie auch?	Is she coming too?
Sie kommt heute wahrscheinlich nicht.	She probably isn't coming today.
fahren	**to go, to drive**
Ich fahre heute nach München.	I'm going to Munich today.
Fährt Herr Meyer auch nach Berlin?	Is Mr. Meyer also going to Berlin?
Wohin fahren Sie?	Where are you going?
Wer fährt nach Berlin?	Who is going to Berlin?
Wir fahren wahrscheinlich nach Deutschland.	We are probably going to Germany.
bleiben	**to stay**
Ich bleibe acht Tage Hier.	I'm staying here for a week.
Bleiben Sie auch hier?	Are you staying here too?
Nein, wir bleiben nicht in Berlin?	No, we aren't staying in Berlin.
Wer bleibt hier?	Who is staying here?
Sie bleiben wahrscheinlich zwei Tage in Heidelberg.	They are probably staying in Heidelberg two days.
mitfahren	**to go along**
Fahren Sie mit?	Are you going along?
Nein, aber Herr Jäger fährt mit.	No, but Mr. Jäger is going along.
Wer fährt denn mit?	Who is going along?
Herr und Frau Müller fahren mit.	Mr. and Mrs. Müller are going along.
Warum fahren Sie nicht mit?	Why aren't you going along?

CONVERSATION PRACTICE

I

A: Ich fahre heute nach Berlin.
B: Wie lange bleiben Sie dort?

A: Acht Tage.
B: Viel Vergnügen!

A: Danke.

II

C: Wo kommen Sie denn her, Herr Meyer?
D: Aus München.
Ich bleibe aber nur drei Tage hier.
D: Fahren Sie dann wieder nach München?
D: Nein, dann fahre ich nach Berlin.

III

E: Wo fahren Sie heute hin?
F: Heute fahre ich nach Kassel.

E: Wie lange bleiben Sie dort?
F: Wahrscheinlich acht Tage.

E: Fährt Herr Meyer mit?
F: Nein, er bleibt hier.

A TYPICAL EXAMINATION

The following sample of an examination (given in the Fall Semester 1963-1964) will serve to indicate the nature of the examinations.

I.	Theme writing (50 minutes)	10%
	Theme: Der deutsche Bundeskanzler (The German Chancellor)	
II.	Prepared story (oral)	17%
	(Seven stories had to be prepared, out of which students drew one at exam)	
	Minimum 10 sentences, 1 mistake 1 minus point	
	Overall impression	3%
III.	Geography or History, theme prepared at home	17%
	Overall impression	3%
IV.	10 questions (concerning newspaper and literature)	20%
	Overall impression	5%
V.	Grammar, 10 exercises (only for teachers' group)	25%

Translation
5 German-English Sentences
5 English-German Sentences

THEMES FOR SPOKEN TEST

1) Streitigkeiten zwischen Ost und West
2) Deutschlands Regierungforme
3) Ostdeutsche Nachrichten und meine Ansicht darüber
4) Was ist Entwicklungshilfe?
5) Nachrichtenüberblick
6) Politische Sorgen von Gestern und Heute
7) Studenten in Deutschland

QUESTIONS

1) Welches sind die Hauptorgane der Bundesrepublik?
2) Von wem und wie oft werden die Mitglieder des Bundestags gewählt?
3) Was ist die Aufgabe des Bundespräsidenten?
4) Wie heisst der deutsche Bundeskanzler?
5) Was hat der deutsche Bundestagsabgeordnete Alex Moeller vorgeschlagen, um die amerikanische Arbeitslosigkeit zu reduzieren?
6) Warum wurde der Vorschlag gemacht, dass die im Bundestag vertreten Partein ihre Hauptgeschäftsstellen nach Berlin verlegen sollten?
7) Warum soll in Deutschland eine Aufklärungskampagne gestartet werden die jedem klarmachen soll, was Entwicklungshilfe eigentlich ist?
8) Wie oft wird der deutsche Bundespräsident gewählt?
9) Wieviel Kosten verursacht das Parlament im Jahr?
10) Warum sprachen die zu einem Besuch nach West-Berlin gekommenen Sowjet-Stuker von "Provokation"?
11) Was sollte das Ziel von Kontakten zwischen ost- und westdeutschen Studenten sein?
12) Warum ist die deutsch-französische Freundschaft z.Zt. etwas "unterkühlt"?
13) Was zählt man in den französischen Zeitungen als negative Beweise für die deutsch-französische Freundschaft auf?
14) Mit welchem Vorschlag ist der Bundestagsabgeordnete Robert Margulies an die Öffentlichkeit getreten?
15) Was hat der sowjetische Verteidigungsminister Malinowski dem Kosmonautenpaar zur Hochzeit geschenkt?
16) Warum haben jetzt einige hundert Amerikaner 15 Prozent Nachlass bei den Prämien zu ihrer Lebensversicherung bekommen?
17) Was haben die Zermatter getan, damit das Hufgeklapper der Pferde die Erholungssuchenden nicht stört?
18) Mit wem hat das Zonenregime ein Abkommen geschlossen und warum?
19) Warum wurde Renate Schneider aus Ostberlin zu 6 Jahren Zuchthaus verurteilt?
20) Was hat man dem Spion Ivan-Assen Hristov Georgiev zur Last gelegt?

21) Warum dürfen die Urlauber, die mit Passagierschiffen des Ostblocks durch den Bosporus und das Marmara-Meer fahren, bei der Durchfahrt durch die Meerengen nicht mehr das Deck betreten?
22) Was halten Sie von der Idee eines Vereinigten Europas?
23) Wer hat grössere politische Rechte, - der Präsident der Vereinigten Staaten oder der Bundespräsident?
24) Was bedeutet das Wort TUSMA?
25) Wozu werden Verkehrszählungen veranstaltet?

The following questions were only for "teachers."

1) Nennen Sie einige Werke von Thomas Mann.
2) Welche Menschen beschrieb Mann in seinen früheren Novellen?
3) Was behandelt sein Roman "Buddenbrooks"?
4) Warum wurde er von seinen Kindern "der Zauberer" genannt?
5) Wie heisst Manns grösstes Werk?
6) Wovon handelt: "Betrachtungen eines Unpolitischen"?
7) Was tat Mann in seiner freien Zeit?
8) Wovon Handeln die meisten Romane von Heinrich Mann?

The following questions were only for "transcribers" in the science course.

1) Was ist Radioaktivität?
2) Was versuchten die Wissenschaftler aus den leichten Elementen Aufzubauen?
3) Wodurch wird die Geschwindigkeit der Protonenstrahlen gesteigert?
4) Welches Instrument wird bei der neueren Methode der Atomspaltung verwandt?
5) Was wird für den künstlichen Atomzerfall benötigt?
6) Was geschieht mit dem Elementenatom, wenn es von den Heliumkernen getroffen wird?
7) Wie hat sich die Stärke der Sonnenstrahlung in den letzten Jahrzehntausenden verändert?
8) Welche Elemente sind sehr kurzlebig?

GRAMMAR (TEACHERS GROUP)

I. (man)

1. Dieser Lärm kann . . . . manchmal zuviel werden.
2. Das erinnert . . . . an Zeiten, wo . . . . glücklicher war.
3. Es kann . . . . passieren, dass . . . . vor jedem Verkehrslicht halten muss.

II. (Syntactic variation)

1. Wenn wir das Misstrauen gegen die Jugendlichen prüfen, so finden wir, dass 2 Urteile immer wiederkehren. (Prüfen wir . . . .)
2. Wenn man den Jugendlichen nach seinen Sorgen fragt, so spricht er von Beruf und Verdienst.
3. Wenn er älter wird und heiraten will, kommt die Sorge für die Wohnung dazu.

III. (Prepositions)

1. Der Präsident ist . . . . der Ausübung seiner Amtsgeschäfte verhindert.
2. Es ist nicht weit her . . . . ihren staatspolitischen Kenntnissen.
3. Welches Gebäude sollte . . . . Ihrer Meinung nicht zum Vorbild für das Vereinigte Europa werden?

IV. (Change to indirect quote)

1. Der Student schrieb: "Ich werde Sprachen lernen."
2. Mehr als dreiviertel der Befragten sagten: "Wir treiben nie Sport."
3. Er sagte: "Ich glaube, ich fahre bald nach Deutschland."

V. (Extended modifiers)

1. Mittelpunkt des Dorfes ist nicht mehr die Kirche, die von alten Bäumen umstanden ist. (. . . . die von alten Bäumen umstandene Kirche)

2. Das Buch, das ich gestern gekauft habe, habe ich schon durchgelesen.
3. Die Parteien, die im Bundestag vertreten sind, sollten ihre Hauptgeschäftsstellen nach Berlin verlegen.

VI. (Relative Clause)

1. München ist eine Stadt, ... durch ihre Schönheit berühmt ist und . . . . musst viel besucht werden.
2. Die Arbeitslosen, ... Zahl mehrere Millionen betrug, erhielten bald Arbeit.
3. Die Herren, mit . . . . ich gesprochen hatte, waren Ausländer.

VII. (Put all sentences in future, past perfect, simple past, passive form)

1. Er findet kein Hotel.
2. Der Maler malt das Bild.
3. Sie schreibt ein Buch.

VIII.(Fill in the blanks)

1. Er hat . . . . Brieftasche verloren; er findet . . . .wieder, aber 20 DM fehlen . . . . .
2. Der Student begegnete . . . . Professor und versprach . . . ., seine Arbeit fertig zu machen.
3. Sie schrieb . . . . Mutter und bat . . . . , bald zu . . . zu kommen.

IX. (Verb-Subject agreement)

1. Kann (A) jedes Rechts (B) alle (C) dieser Fortschritt (D) Gesetze
2. spielt (A) die Rolle (B) anderen Teilen (C) die Kinder (D) grössere Ziele
3. hält (A) der Partnerschaft (B) dem Spiel (C) die Verantwortung (D) der Entwicklung

X. (Find the subject of the sentence)

1. Vor kurzem hat der amerikanische Ausserminster Dean Rusk bei seinem Besuch in Bonn an die Deutschen appelliert, politischer zu werden.
2. Er sagte, Deutschland sei in der Lage, eine höchst bedeutsame Rolle im Aufbau der europäischen Einheit zu spielen.
3. Auf Deutschland ruht zu einem erheblichen Teil die Verantwortung für die Völker der europäischen Gemeinschaft.

TRANSLATION: GERMAN-ENGLISH (TRANSLATORS GROUP)

1) In einer vorbereiteten Erklärung sagte der Präsident, er wolle noch einmal auf die Bedeutung hinweisen, die Ratifizierung dieses Abkommens für die USA habe.
2) Als Fluchtgrund gab er an, er habe keine Genehmigung zum Besuch seines in Westdeutschland lebenden Vaters erhalten.
3) Es war ihm gelungen, die Stacheldrahtverbaue und die Minensperren an der Zonengrenze zu überwinden und in die Bundesrepublik zu flüchten.
4) Während seiner 10 monatigen Untergrundarbeit organisierte er für Tausende von Gefangenen die Flucht aus dem von Deutschen besetzten Rom.
5) Vielleicht hilft dieses Treffen in Paris, eine Vorstellung zu erschüttern, die sich in den Spalten der französischen Presse festzusetzen scheint, - dass nämlich Ludwig Erhard mit dem Etikett "anglophil" zu versehen sei.
6) Die unterschiedliche militärische Politik kann in Wahrheit das deutsch-französische Verhältnis kaum belasten.
7) Weil sie keine Zigaretten rauchen, erhalten einige 100 Amerikaner jetzt 15 Prozent Nachlass bei den Prämien ihrer Lebensversicherung.
8) Das Zonenregime hat mit Ungarn und der Tschechoslowakei ein Abkommen geschlossen, nach denen mitteldeutsche Einwohner, die Verwandte in diesen Ländern haben, keine Einreisevisa mehr benötigen.

9) Die ehemalige Zonenmeisterin im Turnen wurde vom I. Strafsenat des Bezirksgerichts Potsdam zu 6 Jahren Zuchthaus wegen angeblicher Agententätigkeit verurteilt.
10) Ihm wurde zur Last gelegt, seit 7 Jahren politische, wirtschaftliche und militärische Informationen über Bulgarien dem amerikanischen Geheimdienst geliefert zu haben.
11) Nach dem bulgarischen Recht kann er als Verräter zum Tode durch Erschiessen verurteilt werden.

12) Die Flucht von Urlaubern, die mit Passagierschiffen des Ostblocks durch den Bosporus und das Marmara-Meer fahren, soll in Zukunft verhindert werden.
13) Der übereifrige VDS übersah, dass die sowjetischen Delegierten immer noch Vertreter eines totalitären Staates sind.
14) Der Versuch, sowjetische Touristen oder Besucher sofort mit der Mauer und dem Berlin-Problem zu überfallen, zeugt jedenfalls von mangelndem Fingerspitzengefuhl,-ja, man kann sagen, von einer gehörigen Portion Tolpatschigkeit.
15) Man sollte zunächst einmal den Menschen aus dem Osten unsere Welt zeigen, unser Leben, unsere Städte, unsere sozialen Einrichtungen.
16) Berlin müsse, so wird in einer Denkschrift gefordert, noch mehr als bisher ein Zentrum für Wirtschaft, Verkehr und Kultur werden.
17) Die im Bundesgebiet bestehenden Institutionen für die Entwicklungshilfe sollten nach Berlin verlegt werden.

TRANSLATION: ENGLISH-GERMAN

1) A social democratic member of the parliament recommended the employment of American workers in Europe.

2) The unemployment in the United States has reached 5.6 per cent.
3) The wife and son of Harry Seidel and a group of West-

Berliners gathered at the sector-border with placards.
4) He wanted to take his mother through the tunnel to West Berlin.
5) Switzerland is not a member of the United Nations.
6) One out of four inhabitants of the Federal Republic is either a refugee or an expellee.
7) Germany imports oil from the United States.
8) That was well-planned, but badly executed.
9) Civil servants receive a pension in their old age.
10) In the UN the small nations also have a chance to speak.
11) Only one young man out of ten shows real political interest.
12) This invention was made by a young engineer.
13) The small countries cannot handle the problems alone.
14) Only fairly recently scientists were successful in splitting the atom.
15) Science has a long way to go until it can make gold from lead or mercury.
16) In 1924 Prof. Miethe is believed to have transformed gold from mercury.
17) The experiments are short-lived.
18) The experiments did not always run according to plan.
19) They have a lifespan of many billions of years.
20) The rays of the sun haven't changed noticeably in the last ten thousand years.

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REPORT ON THE THIRD COURSE: 1964-66

INTRODUCTION

The physical arrangements for the third course, which lasted from September, 1964, until August, 1966, were the same as for the previous course. By the terms of the new grant, no new students were to be recruited, and so only students from the previous course were accepted. At first, between those students who had previously been interested in teaching, and those who had previously been interested in transcribing but could not obtain security clearance for the work, it was anticipated that there would be fourteen students. Two of the students, who had been promised an opportunity to work in Jugoslavia in the field of training the blind in languages, withdrew from the teacher training course in order to devote their time to the study of Serbian. The work began, then, with twelve students, of whom three were to study German, and nine Russian. As the course continued, more students dropped out for reasons of health, or because they were offered advantageous employment. By the end of the course, five students remained in the Russian group, and none in the German group. However, those who had been studying Russian were afforded, in the last year of the course, the opportunity of studying German, with the result that all five Russian students were also taking German by the end of the course.

Further details of the course will most conveniently be given separately under the heading of the Russian Course and the German Course. A certain amount of similarity between the two courses, however, will make it expeditious to describe one course in greater detail, and to relate the other to it. It has been decided, therefore, to present the activities in the German course in the greatest detail; they are, on the whole, the more informative. The Russian course will be described subsequently insofar as it exhibited characteristics different from those of the German course.

THE TEACHER TRAINING PROGRAM IN GERMAN

INTRODUCTION

The two-year Intensive German Teacher Training Program began in September, 1964, with three students. The three students were

a) Miss Sylvia Chun, a graduate student, with some previous experience in teaching, and partially sighted;

b) Miss Wilma Davidson, an undergraduate student;

c) Mrs. Pauline Doherty, an undergraduate, married to one of the assistants in instruction from the second course, and the mother of a new baby.

LANGUAGE INSTRUCTION

The courses in language which the students took were the following.

FALL SEMESTER, 1964

All three students had at least four hours of German and five hours of Methodology and Research on the premises of the German Teacher Training Program (for the Blind) as well as other courses at the Institute of Languages and Linguistics of Georgetown University. The courses which were taken by the blind students were no longer considered to be special courses, and all students were regularly enrolled and expected to meet the requirements of the Institute of Languages and Linguistics.

Miss Chun was, in addition, enrolled in a three-credit course in German Structure and in a three-credit course in English Structure. In her spare time, being partially sighted, she did some extra work in Brailling for the German Teacher Training Program; she also tutored another blind student who was enrolled at the Institute, but not in the teacher training program.

Miss Davidson was registered for Methodology of Language Teaching and for Phonetics and Phonemics. Miss Davidson left the university after the end of this semester for reasons of health.

Mrs. Doherty studied only part-time, because she was not able to find a full-time baby sitter. She managed, however, to complete five hours of German (literature, style and grammar) and five hours of Methodology, or ten hours a week of class in all.

SPRING SEMESTER, 1965

Miss Chun finished the textbook Mueller, Deutsch Drittes Buch. She also read Bert Brecht, Mutter Courage und ihre Kinder, Schiller, Wallensteins Lager, and Bergengruen, Zorn, Zeit und Ewigkeit. The tapes for these books were obtained from the Hoerbuecherei in Muenster, Germany. Miss Chun wrote several reports on these readings, including a comparison of the characters in the drama of Brecht and Schiller, and a book report on Bergengruen's novels. In class, there were discussions of the style of the various authors, and of the idioms and expressions which they used; grammatical points that were new, or that required review, were also discussed. In addition to the several quizzes which were given during the semester, there was a final examination in which Miss Chun received a grade of A; her semester grade was also A. In her spare time, Miss Chun assisted the project by working on teaching aids, and by Brailling a German reader.

Different classroom hours had to be set for Mrs. Doherty, who was only able to attend class for six hours a week. Mrs. Doherty finished the text Mueller, Deutsch, Drittes Buch and read Gerhard Hauptmann's novel Bahnwaerter Thiel. In both texts, the finer grammatical points, the synonyms, the style of the various authors, and the exercises given in the text were carefully covered. Often a whole short story from the Mueller text would be read to the student after which she was asked to comment on it and then to retell it. Later the story was read carefully again; this time notes were made of new words and idioms and, where necessary, new grammatical constructions were explained. The student then took the tape on which the lessons were recorded and worked on it at home. Sometimes a written report was required on one of the characters in the story, while on other occasions the student was asked to retell the story in a different tense, or even to tell it as if she had been the central character. A book report also had to be written and submitted by the end of the semester. In spite of the many class hours which Mrs. Doherty missed because of the illness of her child, her final examination was excellent. The examination consisted of three parts: writing, reading, and speaking. In writing, the student was given a theme to write on and thirty grammatical questions which had been recorded on tape to answer in writing; she had a time limit of two hours in which to complete this portion of the examination. In reading, an article written in German Braille Grade II (Kurzschrift) was to be read within a time limit of ten minutes. In speaking, the student had to give orally a lecture which she had prepared previously on Bahnwaerter Thiel, including a description of the main characters and their motivations. She spoke without notes for about fifteen minutes. After that, she was required to answer twenty questions concerning various pieces of literature from the Mueller text. Her grade for the examination was an A, and her semester grade was also an A.

SUMMER SEMESTER, 1965

Miss Chun received an offer of employment in which she could use her German; the work was with a government agency and she began with a grade of GS-7 in the month of July, 1965.

Miss Davidson, who had withdrawn at the end of the fall semester for reasons of health, had now recovered, and was offered a similar job by the same agency at the same starting grade.

Mrs. Doherty was unable to study during the summer semester because of the continuing illness of her baby, and because she felt the need for a respite from study. She did not actually return to classes in the fall of 1965, but she made herself extremely helpful by writing out Braille materials at home, and this constituted a type of study for her.

CULTURAL ORIENTATION

Hand in hand with the courses in the German language went courses designed to give systematic cultural information, and a picture of Germany as it is today. Newspapers such as Die Welt, Unsere Zeitung and Die Zeit were read regularly so that the students would remain fully informed about events in Germany as well as about its political, economic and cultural institutions. The students discussed articles from the newspaper, gave reports, compared various articles and listened to recordings of material from Unsere Zeitung, after which they retold what they had just heard. This increased their fluency in the language, and at the same time augmented their vocabulary.

TEACHER TRAINING

All of the students were required to take the course Methodology of Language Teaching which is offered at Georgetown by Dr. Robert Lado, an eminent authority on the subject. In addition, the students had a seminar on the Methodology of Language Teaching for the Blind and this was conducted by Mrs. Christoph so as to mesh with Dr. Lado's course. Since, for any teacher, but especially for a blind teacher, it is important to have not only an excellent command of the language, but also an excellent command of the teaching method and of the classroom situation, the methodology seminar covered the following topics.

In order to familiarize the teacher trainees with the most frequently used German Textbooks, several of these were carefully reviewed. The students were shown how to use the books, and how to construct additional drills, where necessary. The textbooks reviewed in this fashion were

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e) A First Course in German by Alexis.

f) Deutschland Heute by Alexis.

Of these books, only item a) and Volumes II - IV of item c) were found to be reasonably adaptable for use by blind teachers. Item f) is an excellent German reader; but item e), by the same author, leaves much to be desired, as do the other items on the list. The chief inadequacy of these books is their lack of drills and their often unsystematic presentation of the grammatical points. A sighted teacher might perhaps be able to remedy these ills quite easily, but this would create an enormous burden for a blind teacher. Because items a) and c) include in their teacher's manuals extensive drills, hints on methodology, and even prepared examinations (these are found in item c) only), it is strongly recommended that these be the textbooks adopted for use by blind teachers.

Naturally, each class, each course, and each student is different, and therefore the methods employed and even the books used by each individual teacher must be adapted to the teacher's own needs and methods. This is much more the case with blind teachers; however good the book of their choice, there is always a need to supplement it with more drills. A skilled teacher must be able to work with any textbook. The teacher trainees were therefore taught how to prepare their own drill materials and flash cards, how to use other aids available to the blind teacher, and above all, how to construct day-to-day lessons and to teach them.

At the beginning of the methodology course, the students were introduced to the methodology of teaching from the psychological viewpoint. They were first given an introductory lecture on the work of the teacher in general, and on the teacher's responsibilities and duties. It was emphasized to the students how absolutely essential it is to maintain a lively pace in class, to remain alert and aware at all times, and to present varied material so as not to bore the students with too much uniformity. Above all, the need to remain perceptive and receptive towards new teaching methods and theories was stressed; a skilled teacher must be able to keep his mind open to new methods and to experiment with them, so that he is constantly striving to give the students the best teaching available. One of the major problems during the course was the lack of self-assurance in the students themselves. In order to overcome this, probably the most negative and destructive trait a teacher can possess, a tape recorder was placed in the classroom to record the proceedings each time one of the students presented a class. After the class, the students were able to hear how they had sounded, and were able to analyze the aspects of their presentation which made them sound less than self-assured. They were then able to practise sounding confident and poised, however trepidaceous they might actually feel. In time the students overcame thier self-consciousness, and were then able to concentrate seriously on the subject of their lessons.

After the psychological difficulties had been reduced, the technique of the profession was discussed. The basic components of good teacher performance were noted; speaking in a pleasant clear voice at normal speed, speaking directly to the students, not spending too much time on one student, encouraging the participation of every student, correcting errors immediately, and using English only when necessary to save large amounts of time.

After the technique had been discussed, the students were ready to begin training on the basic steps of preparation and presentation.

The students were shown how to prepare appropriate drills for the pronunciation of German vowels. This was done on the principle of building from one item to the next. At first, for example, the long i vowel is presented and examples of the sound are given; then the short i vowel is presented and the difference between the two vowels is emphasized and made actual by the presentation of pairs of words which differ only in that one has the long i vowel and the other has the short i vowel (biete and bitte), (ihm and im), and so on. Then a new sound is presented; for example, the long e vowel. This is then contrasted with all previous vowels in minimal pairs as before. After these demonstrations, the students were asked to construct their own exercises, finding suitable minimal pairs for the purpose, and building a syllabus for the presentation of the vowels and consonants.

Next, the students were taught the first steps in the presentation of a new lesson, the Basic Sentences of a dialogue. As with the phonological units, the procedure is to build up items step by step; first the new vocabulary of each sentence is given by the teacher, with the corresponding plural forms; these are immediately repeated and imitated by the student; then the individual words of each sentence are built up into phrases, and then into the entire sentence; at each point, the students imitate and repeat. Translations are given new words and for the entire sentence as necessary. The students of the course used this basic method to practise the presentation of the basic sentences themselves. Then rotation of the sentences among individual students, choral and individual repetition, and finally independent dialogue practise were explained to the teacher trainees and practised by them.

Further detailed instruction and training were given in the review of basic sentences, combining and varying them with previously learned vocabulary and structural points.

Upon completion of basic sentence presentation practise, the students were instructed in the general procedure for constructing and presenting exercises and additional drills either on the basic sentences or on the grammatical points of the lesson. Among the types of exercises introduced were the following: illustrative exercises, response drills, translation exercises, variation drills, replacement exercises, build-up drills, and substitution exercises. The following is an example of several kinds of substitution drills for Lesson I of Mueller "Deutsch I," a model of the kind of drills worked on by the students.

1) Mutter, wir haben Post.
ich
er
du
sie
Fraeulein Schmidt
Frau Weber
Vater

Mutter, wir haben Post
Vater
Frau Weber
Fraeulein Schmidt

2) Guten Morgen, Frau Weber.
Guten Abend
Guten Tag
Gute Nacht
Aufwiedersehen

Guten Morgen, Frau Weber.
Fraeulein Schmidt
Vater
Mutter
Peter

3) Hier ist ein Brief.
Karte
Paket

4) Oh, der Brief ist von Vater.
die Karte
das Paket
die Post

Oh, der Brief ist von Vater.
Mutter
Peter
Fraeulein Schmidt
Frau Weber

5) Die Karte ist aus Amerika.
Post Muenchen
Brief
Paket

6) Ich habe auch ein Paket fuer Fraeulein Schmidt.
wir Frau Weber
er Peter
sie
sie (pl.)
der Brieftraeger
der Vater
die Mutter
Frau Weber

7) Fraeulein Schmidt ist nicht zu Hause.
der Vater hier
die Mutter in Amerika
das Kind in Muenchen
Frau Weber

Since a very important and beneficial part of classroom work in a language is conversation, the teacher trainees were frequently required both to participate in and to lead conversations. In order to give the students more ideas, certain quidelines were presented to them, such as question-answer drills, substitution drills, games, and of course, sample topics for conversations. The importance and benefit of these conversations, the immediate correction of pronunciation and other mistakes, as well as the keeping up of a lively pace were especially stressed to the students, who were then required to compose original conversations and conversation ideas, as assignments.

An important part of the course was practise teaching by the students themselves. The original idea was to have sighted students of Georgetown University as guinea pigs for our teacher trainees, but this idea was never realized because of lack of time and also lack of volunteers on the part of the Georgetown students. Although no sighted students were available, one blind student did volunteer - a former Russian student acted as a high school student in an experiment to teach her units 1 and 2 in German. She was taught by all three trainees. Unfortunately, the teaching devices which the teacher trainees were expected to try out could not successfully be used on the blind experimental student. In order to give the trainees an opportunity to try out these devices, the instructor tried acting as a student, but this procedure proved unsuccessful also.

Nevertheless, even without sighted experimental students, the trainees were able to conduct classes, and thereby receive some teaching practise. After each student practise teaching session, the other trainees criticized the teacher, and listened to the comments of the instructor. In this way, the trainees gained valuable teaching practise which enabled them to overcome their initial shyness and lack of self-assurance.

A final part of the methodology course consisted of visits to several area high schools: November, 1964 - Walter Johnson Senior High School, Montgomery County (French and German); December, 1964 - High Point High School (German 1 and 2); December, 1964 - Bladensburg Junior High School

(French); April, 1965 - George Washington High School, Alexandria, (German I); May, 1965 - Hammond High School, Arlington, Virginia, (German I and II).

These school visits were especially important to the trainees in that they saw both positive and negative teaching methods in actual use. By later discussing and criticizing the teachers they had seen the students were able to gain new insight and ideas.

At the close of the course, some final suggestions were given as to the arrangement of the lesson presentation for the course of an entire week of classes, in order that all vital material and drills could be covered.

The goal of the entire methodology course was, therefore, to familiarize and habituate the teacher trainees with methods, similar to those used in the project itself. The idea was to show the trainees how to go about teaching the language - the grammar, the vocabulary, the sounds, the idioms, the patterns - in a systematic, organized and well-planned program.

The final examination of the course consisted of an application of the methodology that had been covered. Each student was given a simple dialogue with the request that she was to construct an entire lesson with the following drills: build-up, phonetics, substitution, question-answer, conversation and an explanation of the grammar.

THE SECOND YEAR; FALL SEMESTER, 1965

In the fall semester of 1965 German classes were begun with five students who had previously had only Russian. However, since these students were still continuing their Russian, and were also registered on campus for other linguistics and Russian courses, the German teacher-training program was limited to only five hours of German per week, although during the summer semester - third semester - the number of hours were increased to eight per week. The intensive course at the project had to again meet the requirements of the corresponding course on campus, therefore, Mueller: Deutsch, Erstes Buch was used as the textbook. During the fall semester seven lessons were covered, and in the spring, only five lessons, but in the summer session, seven lessons were again covered. The total of lessons in the book is twenty-four; the students are therefore five lessons short of finishing the first course. Each lesson is accompanied by a tape which covers the material in that lesson. In addition there are forty special supplementary tapes, which give the students extra material to work with in each lesson. All together the tapes covered all the material of the book plus additional drills - substitution, variation, transformation and completion. The additional drills were a variation from the material of the book: they covered the same vocabulary and structural points that the lessons of the book covered, but they reinforced these materials. They were also valuable for listening practice, as no text was given to the students and they had to rely on listening alone. There were also dictations given on the tapes; these had to be handed in for grading and correction. During the first week (five classroom hours) the phonology was introduced. In order not to tire the students with the repetition of words without any meaning to them, a very simple dialogue consisting of greetings, questions about health, and so on was added.

All sounds were practised in one-syllable words, with special attention given those sounds for which English has no equivalents. Contrasts were practised in minimal pairs.

Each lesson then began with a dialogue, presented in class, in a build-up form with phonetic exercises where necessary. In the following class pattern drills were given the students, with constant repetition and drills of the basic sentences of the dialogue. A reading exercise, written in Braille, followed each dialogue, and was used, in addition to the basic sentences, for topics of conversation. Also at this point, dictations were given and a review preceded the examination after each lesson. These weekly oral tests were those supplied by the Mueller Deutsch: Erstes Buch, but the final examinations of each semester were written by the instructor in collaboration with a colleague from the German division of the Institute of Languages and Linguistics. The examination consisted of a dictation, the reading of an article, a prepared story to retell orally, an unprepared story to retell orally, grammatical questions, and finally some questions taken from the readings of the Mueller text.

Besides the German (Mueller) course, the students attended a weekly seminar during the third semester. The book read was Schweitzer by Goedsche-Glättli; this is a reader, written in German Grade II Braille, and it was introduced so that the students would have extra practice in reading the Grade II.

RESEARCH IN METHODOLOGY

In order to achieve the goal of training as well as research, certain methods had to be tested. The testing of these methods was in itself research, but since it was also connected with the actual training of the student-teachers, it will be discussed separately from the "pure" research - blackboard, flashcards, and other teaching aids.

One of the first methods introduced was dictation practice, which was given once or twice a week. The first group of trainees - 1962-1964 - was very diligent and conscientious, and consequently profited greatly from the weekly practice sessions. Their typing ability was excellent. However, the second group, those beginning in 1964 - was very poor in this respect. Only two students have achieved any substantial ability in typing, while the others have not even shown much improvement. Since these same students show poor typing ability in English also, they have obviously not been given adequate training in English typing. It is absolutely necessary, therefore, that, prior to beginning of study of a foreign language, a blind student must master typing in English.

Perhaps a major difference between the two groups is that the first group was studying only one language, whereas the second group began with Russian, and then took up German while still continuing Russian. Alternating between languages has proved itself to be rather detrimental to progress in both languages, but the greatest difficulty arises in the typing practice, where the alternating, not only from language to language, but also from alphabet to alphabet and from keyboard to keyboard, apparently creates the greatest dislocation. Typing should eventually become a rather automatic process, but, owing to constant alternating, the students of the project were not able to bring their typing ability to the automatic level; they always remained on the conscious level.

An interesting suggestion which might help diminish the enormous number of typing mistakes made by the blind students was made by an assistant in instruction who taught the blind students. "In order to avoid these errors, it might be useful for the blind to have a typewriter, connected to an earphone, so that they can hear what letter they strike." Owing to lack of time, however, the project was not able to explore whether the construction of such a typewriter is technically feasible, and whether such a device would prove practical and useful to the blind.

Another teaching method which was researched was the use of three-dimensional models, particularly the model house, and the model city. Both models are first introduced to the students by reading the accompanying manual, while the students' fingers are guided along the respective objects being described. Every detail of the model is described in the manual, but eventually the blind teacher-to-be must memorize the entire model if he is to work with it successfully in his own classes. (See detailed reports, beginning page 149.)

The students quickly became familar with the models and showed genuine interest in working with them. The models served excellently the purpose of reviewing and practising grammatical points and vocabulary, while at the same time offering the students a break from the monotony and uniformity of regular class drills.

Both models are especially useful because of the wide range of exercises and practice which they offer. Simple situations, exercises and conversations for each model are supplied by the respective manual printed in Braille. Working on the basis of these samples, each teacher can then prepare his or her own original situations for practice dialogues.

It is imperative that the blind students wishing to teach read as much Braille as possible (and listen to as many recordings as possible). There seems, however, to be very little Braille reading material available for students of foreign languages in the U.S. - less in German than in Spanish and French - and what is available is in timeconsuming German Grade I Braille. A wealth of material is available from Germany for the borrowing, but in German Grade II Braille. It is to the student's advantage to be able to use this material; he must of course be able to read Grade II German Braille. Since these books, as well as all weekly papers and dictionaries from Germany are in Braille II ("Kurzachrift"), it was absolutely necessary to have a manual explaining the Grade II contractions. The original suggestion was to request the permission of Professor Strehl, of the Blindenstudienanstalt in Margurg, Germany, to translate the German explanation of German Grade II Braille into English. Shortly after permission was given, news was received that the Hadley School for the Blind in Winnetka, Illinois had in its possession an English explanation of the Grade II German Braille contractions. Copies of this manual were immediately requested, and the shipment was received by November, 1965. Since then the students have been able to individually learn the contracted form with the aid of the English explanation.

Permission was obtained from the American Book Co. to transcribe an existing graded reader used in many university German classes, (Goedsche and Glaettli, Albert Schweitzer) into both Grade I and Grade II German Braille; the lefthand page is in Braille I and the facing righthand page is the same material in Braille II. The purpose of the double writing was to ensure that the students would begin an active use of Grade II Braille under the supervision of the instructor. Until that point, the students had received complete textbook materials (Lessons 1-15 of the Mueller book) in both grades, but had made no effort to learn Grade II on their own. However, beginning with lesson 16, the students were given only the Braille II text, except for the vocabulary; the vocabulary was always given in Grade I, in order that the students might learn the correct spelling of words.

With the beginning of the weekly Seminar on Schweitzer, the students were obliged to practise the German Grade II Braille. The instructor carefully watched to see that while one student read aloud from the Grade I page, the others followed on the Grade II page. If a student was seen following in Grade I, he would be immediately instructed to turn to Braille II. In this way, the students were able to adapt themselves quickly and easily to the use of Grade II, without too sudden a change.

The practice in the seminar also contributed to the reading of the Mueller text in Grade II from lessons 16 on; the student had no Grade I to refer to for assistance.

PRACTICE TEACHING

Practice teaching has always been a prime difficulty. With the entrance of four blind students from Georgetown University, additional help in teaching was required to bring these students up to the same level as the others, since the new students, having entered only in November, were several lessons behind. One of the two best students of the HEW group - Mr. Alan Schlank - was offered the chance to act as instructor to the new group for a period of several weeks. Since Mr. Schlank was an exceptionally good and conscientious student, and had mastered the first several lessons, he proved to be an excellent tutor for one or two hours per week. On the day before his class, Mr. Schlank would prepare a substitution drill or a question-answer drill, which was then discussed with the German instructor before the class. He also gave dictation to his students. His teaching practice was extremely successful, as he was conscientious and diligent in his work.

Another of the students was also able to do some practice teaching, although not at our project. Mr. Alex Zazow had a summer job as chairman of the Georgetown University committee for teaching French to Junior High School students. Mr. Zazow himself taught two classes, one with fifteen students and the other with nine. According to Mr. Zazow his first difficulties arose with the arranging of his lessons, for the book used was the same one that the high schools use. He had to therefore make certain adjustments to fit his own needs. The lesson program he followed is similar to that which he was trained to use in the German Teacher Training Project which is the subject of this report, imitation, repetition, memorization of basic sentences, question-answer drills, substitution drills, and a tape was prepared by Mr. Zazow to accompany each new lesson. Mr. Zazow admits he used no special teaching aids due mainly to the lack of time for preparing them; he also did not use the blackboard because his own writing is not satisfactory. However, the students themselves did enjoy using the blackboard, but in order to divert attention from his handicap, Mr. Zazow gave the students a dictation, which was reread aloud by one student, commented on by Mr. Zazow, and only then put on the board by that student. By thus reversing the usual order, putting reading before writing, Mr. Zazow was able to render his blindness less noticeable.

In connection with the more technical points, Mr. Zazow mentioned that he did not require the students to sit alphabetically after the first few days, for this again would call too much attention to his handicap. Instead he would call out names, while often walking back and forth through the rows. Usually, he prepared his own tests, but for their correction, he asked for the aid of friends or readers, never students, for that "would look too much like favoritism." Although he admits the readers were often difficult to find, they were receptive.

Mr. Zazow did not complain much about discipline, for the students generally responded quickly to his requests and orders, without taking advantage of his blindness, although he does admit, that the girls were more cooperative and easier to teach. On the whole, Mr. Zazow is of the opinion, that the sooner one "treats the students with dignity, as adults, the sooner the students will act as adults."

Mr. Zazow explained that because of his blindness he was often stricter with the students than some of his colleagues. This sometimes created resentment on the part of the other teachers, and resulted in a kind of passive resistance, although he always received their cooperation.

On the whole, Mr. Zazow was extremely pleased with his work and showed much pleasure in it, although it required an enormous amount of patience, time, energy and work on his part.

HEALTH AND WELL-BEING

The progress and general attitude of three of the five students were satisfactory. Two students, however, were passive and uninterested. It is entirely possible that the poor study habits of these individuals was caused by a lack of adjustment and purpose, as well as by course work extended over too long a time. It was observed that poor study habits tended to be accompanied by overall untidiness, bad manners and careless treatment of study materials. In general, it seems to be the case, that whenever the blind student is well-dressed, clean and careful with his personal belongings, he will also take extra care with his study materials. It was necessary, therefore, to impress upon the students constantly how very detrimental such slovenliness is to job-seeking and job-keeping.

In most cases, however, the students were quite grateful to the instructor for any such reminders, suggestions and comments. They often approached the instructor with questions as to their appearance. As one assistant instructor wrote: "As Mrs. Christoph was about to introduce me to the students, one of them came to Mrs. Christoph and asked her whether his clothes were stained or not. This and subsequent experiences show that the teacher of the blind not only has to teach, but has to be available for all kinds of problems sighted people don't have. It doesn't take a long time to find out that a teacher of blind students spends many hours a week listening to their problems and helping to resolve these problems - even on Sundays, . . . or evenings."

However, in the first group - 1962 - 64, there were no such problems concerning their appearance. The former group seemed to be exceptionally tidy and orderly as is the group of blind students from Georgetown University.

Perhaps a strong detriment to the psychological growth and attitude of the students, is their isolation from the student life and activities of the Georgetown

University campus. The students have very little chance to meet other people, outside of their own narrow circle. Taking courses on campus is not always enough, and the blind students often complain that not enough help is given them by the professors and other students outside of class. Consequently they withdraw into their own circle and to themselves.

INTRODUCTION TO THE RUSSIAN COURSE

The physical arrangements for the course remained the same as in the previous course. Because so few students were enrolled, the teaching staff was reduced to the two original teachers, Mr. Schulgin and Mrs. Baydalakov. The nine students who were expected to begin the course did not all enroll because a number of them were offered employment. It might have been possible for them to work and to study part time, but a decision that part-time study would not be permitted prevented this. In the end, there were four students during the fall semester. At the beginning of the spring semester, one of the four students left to accept employment. Two other students, who had been expecting to go to Jugoslavia to train the blind in language skills there, and who had been taking Serbian courses with this purpose in view, came to the conclusion that the project in Jugoslavia was not likely to materialize, and so they resumed their work in the Russian course. The student body now consisted of five, and continued so throughout the first year. During the second year of the course, the students were afforded the opportunity to begin the study of German, also. Between this study of German, and the regular courses which they were taking at the Institute of Languages and Linguistics, some of them cut down on the amount of Russian which they were studying, because of the need to fulfill other requirements leading to the degree for which they were studying. Thus, while all five students were enrolled for Russian during the fall semester of the second year, four were registered for the spring semester, and two for the summer semester.

LANGUAGE COURSES

The students had by his time a very considerable ability in the Russian language, and so the courses offered were designed chiefly to polish this knowledge and to broaden the students' familiarity with works of Russian literature. Of the ten hours a week now spent in courses designed especially for the blind students, four hours were spent on language. Several works of literature both by classic and Soviet writers were recorded on tape. No special vocabulary tapes were supplied; the student was obliged to rely directly on his previous knowledge of Russian and on the context; what he could not gather in this way was covered during classroom discussions. In class, the material was discussed and comments on particular structures or turns of phrase were provided. Each student was then required to give a condensed report on the whole text, or on part of it, interjecting his own opinion, and highlighting it according to his own field of interest. Finally a short written report was required.

In addition, there was a course on Russian Composition and Style, conducted on a seminar basis for two hours per week. This seminar discussed the most complex Russian structures, giving especial emphasis to those cases in which clauses and other complex structures functioned as nouns, adjectives, and adverbs. Special attention was paid also to impersonal sentences. The course also included a comparison between the typical style of the nineteenth century authors and that of present-day authors.

METHODOLOGY OF LANGUAGE TEACHING

In addition to the course on Methodology of Language Teaching which was given by Dr. Lado, the students were given a course in Methodology of Language Teaching for the Blind. This occupied the remaining four teaching hours in the week.

There was a thorough evaluation of the existing textbooks in order to find the types of presentation most suitable for a blind teacher. In addition, there was a review and re-evaluation of the teaching materials which had been used in former courses for teaching Russian to the blind, and these materials were commented on, criticized, and reworked.

The psychological difficulty involved in acting as a teacher was overcome in the manner already described in the German report (page 99).

The process of teaching Russian was studied first on the introductory level and later on the intermediate level. The presentation of lessons at an advanced level was not attempted. The students were shown first how to introduce the study of the Russian language by telling their students about its general features and so giving them a preview of what they would expect to learn. They were then shown how to introduce the Russian phonology and how to build phonological drills. In the same way, they were instructed on the introduction of Russian structures and were taught how to construct the various sorts of structural drills. Particular attention and emphasis were given to the aspects of the Russian verb.

On the intermediate level, a number of short and easy pieces of literature were discussed and the more complicated structures were introduced. Students were assigned lessons to prepare in a particular area and for either the introductory or intermediate level. They presented these lessons to the other students who were encouraged to ask questions and demand further information in exactly the same way as a class might do. In the fall semester of 1965, when the university undertook to train more blind students in Russian and German (this course was not sponsored by the Department of Health, Education and Welfare, and is not described in detail in this report), an opportunity was given for the teacher trainees to teach Russian to someone who did not yet know it and who could present a much more satisfactory impression of how a student would react to the teaching. It was unfortunate that the third course had been specifically limited to trainees who had studied in the second course, since there were no incoming students on whom they could practise teaching. If they had had the opportunity to test themselves and to learn the basic principles with blind students during the first year, it might have been possible to arrange for them to teach sighted students during the second year. Owing to the fact, however, that it was not until the second year that they received any true experience in teaching, they were not able to develop the combination of self-sureness and experience which would have been a necessity for them in conducting sighted classes.

RESEARCH PROJECTS

The teaching aids which were developed have been described fairly extensively in the preceding report on the German course (page 107). One further teaching aid was under discussion for the Russian course, but the planning stage required so much time that it was not feasible to construct it and test it. The model city and model house described above involved the transferring of an essentially horizontal area to an essentially vertical plane so that the student had the effect of looking down on the house and the city. The new project was an attempt to build a situation where the essential aspect of the teaching aids would be maintained so that things normally in a horizontal plane would remain in the plane. The result would be a sort of stage arrangement in which three-dimensional items could be placed and manoeuvred. This would involve the building of a sort of deep shadow box to represent the interior of a room, for example, and the plan was to use some of the multitude of dolls now on the market which are specifically designed to be as lifelike and as well-proportioned as possible, and for which many types of clothes and furniture can be purchased, or made. Mannequins of this sort are much more useful to the blind teacher than pictures, because the blind teacher is generally familiar with three-dimensional representations but quite unused to two-dimensional representations, especially to those which are largely conventional, such as the drawing of lines in a picture to represent corners, or perspective fore-shortening, since the blind do not realize these as straight lines.

The various problems involved were still under consideration at the end of the course.

In other respects, the conditions of the Russian Course can be assumed to be the same as those of the German Course previously described.

RESEARCH IN TEACHING AIDS

Since the Georgetown University Special Language Project was meant to train blind teachers, special attention was paid to particular aspects, skill in the language, and methodology. However, the Project has had as another purpose the development of better methods for training and teaching aids for the blind teacher. This work was in the nature of a research and pioneer project as up to now the acceptance in the teaching profession has been minimal, owing to the various disadvantages of their handicap. A blind teacher will always need a reader who can read the required material to him. Generally, the essential requirement is that the reader be proficient in the English language, and this is a usual qualification of the sighted co-students who, for the most part, function as readers for the blind. Understanding or comprehension of the material being read is not a basic requirement. The reading of foreign language texts, however, requires both an adequate knowledge and a good pronunciation of the foreign language. This means the reader must be highly proficient in the language to be of any use to the blind teacher. It is evident that this puts the blind teacher in a disadvantageous if not non-competitive position because the reader must practically be a native speaker, which is rare, and probably expensive if available.

Blind teachers need extensive practise in reading in the foreign language, especially when contracted forms or different alphabets are used. This requires special instruction and teaching aids which are difficult to find. Blind teachers often cannot make adequate use of the blackboard and often need additional training in this respect, especially if they teach in larger classes, such as in colleges, where the students cannot always be given individual attention. Language classes usually work with pictures, mimiery and gestures. Many modern language textbooks are based on pictures and picture stories. Blind teachers naturally need other teaching aids. Quizzes and exams must be given in a different way, either by tape or orally, or they must be administered with the help of an assistant.

Nevertheless, due to lack of well-trained, sighted language teachers, the research project has undertaken to help find methods for eliminating, or at least minimizing the disadvantages of the handicap of the blind teachers, in order that they may be able to function successfully in that profession.

INTERVIEW WITH MR. CARL T. ROGERS

Dr. Macdonald, the Director of the Georgetown Special Language Projects, and Mrs. Christoph, the German instructor, while in New York city, secured an appointment with Mr. Carl T. Rogers, the Consultant Specialist on Tactual Aids at the American Foundation for the Blind.

Mr. Rogers, who is blind himself, gave valuable insights on the training of the blind. Many questions were discussed with him, and it was a very interesting and most informative three and one-half hour visit. The topics covered with Mr. Rogers can best be presented under a series of different headings, because the discussion ranged over different areas.

SIGHTED AID

Mr. Rogers pointed out that the aid of a sighted person is almost indispensable for the blind teacher, and that it is especially necessary in examinations. Sighted proctoral assistance is necessary when the examination is being given; a friend, a colleague or an employee such as a secretary may be called in to assist, but never, of course, a student. Sighted assistance is also necessary for marking the examinations.

CLASS DISCIPLINE

In order to maintain discipline in class, the blind teacher must rely on auditory cues. He must learn to hear fidgeting, squirming, lack of interest and must react to it. This auditory perception is the key to handling disciplinary problems.

Marking the attendance must eventually be done in ink with the help of a sighted assistant, but in the classroom it should be done in Braille. The teacher should have a number of blank cards or slips on which he can write the names of the absent students, the presumption being that fewer will be absent than are present. This information can be later transferred to the ink roll which must be maintained for the benefit of the school administration.

The identification of the students in the class can be made easier by assigned seating arrangements, directional cues, and distance cues. The teacher should request that each student give his name before he speaks; the teacher will soon learn to associate the name and the voice and the location and so will be able to locate the seat of any disturbance.

PREPARATION

Mr. Rogers stressed that the preparation of the teacher is extremely important for blind teachers, particularly in the field of language, and he feels that the program for training the blind at Georgetown University is unique in the way in which it tries to provide an intensive preparation.

It is necessary for the blind teacher to be an adept in public speaking, because he cannot look around and make visual contact. Moreover, the blind teacher is not usually able to convey effects by gestures and facial expressions as freely as a sighted person can. Dr. Macdonald pointed out that an important part of language is not merely what is audible, but is contained in the gestures, facial expressions and intonation patterns of the speaker. It is therefore distracting, if only on a subconscious level, for the sighted hearer to listen to someone who is not making the expected gestures; the starkness of such a lack of gestures makes the hearer somewhat uncomfortable. Mr. Rogers felt, however, that it would be very difficult to train the blind to apply the appropriate gestures to different situations, and he thinks that the blind would feel more uncomfortable about trying to make these gestures than the students might feel at not seeing them. Dr. Macdonald readily conceded that if the gestures were inappropriate or too far removed from the conventional, they would probably be even more distracting than no gestures at all. Mrs. Christoph pointed out that in cases where she has taught the blind students to act out plays, it was generally difficult to teach natural-looking gestures although some students learned gestures more quickly and accurately than others. It was agreed that a limited number of signs which would be used for directing the class as to when they were to repeat should be taught, but that, on the whole, gestures should be kept to a minimum.

The blind teacher's own preparation for his classes is also extemely important. Mr. Rogers stressed very strongly that hard work on the part of the blind teacher is one important key to success, and that order is the other. The blind teacher must make copious Braille notes. Such notes present two disadvantages. One is the problem of bulk; this can be somewhat reduced by using a good bond paper instead of the conventional Braille paper. The other is the problem of storage; the notes must be kept in sturdy and roomy boxes to prevent them from being crushed, and when sections of the notes are to be carried about, they should be fitted into a box which will fit into the teacher's briefcase so as to minimize the danger of their being crushed accidentally. Non-Braille materials must be carefully filed in manilla envelopes which have Braille markers on them. For classroom use information can be Brailled on cards, particularly quotations and other material which is to be quoted directly. Cues which will remind the teacher of the items to be discussed in class can also be put on such cards. In all cases, the teacher must be able to manipulate the cards handily and to read them without hesitation. Mrs. Christoph mentioned the possibility of Grade II Braille. Mr. Rogers said that the faster Braille reader will ordinarily only read into a word until he ascertains what the first part is, and feels sure that he can guess the remainder, whereupon he goes on to the next word. For this reason, a competent reader may be able to read Grade I Braille as fast as he will ever be able to read Grade II Braille. Mr. Rogers went on to say that Grade II Braille is not used for teaching English in this country. He feels that Grade II Braille is actually a hindrance for many and that it tends to contribute to bad spelling habits. He advised that German Grade II Braille be taught only by spelling out whatever the condensed form was intended to represent, and by having the students repeat the spelling of the whole word even though it might be written in a condensed form.

If the blind teacher intends to use charts and cards in the class, each chart or card should have a full explanation of its content in Braille glued to its back. The teacher can then refresh his memory before class as to what is on the face of the card. It would hardly be practical, however, to read these descriptions while the class is in progress. The blind teacher should learn what is on the card and how it is arranged by consulting with a sighted assistant and by developing a sense of space in relation to the card which will help him to locate any details upon which he wishes to focus the students' attention. Marks on the margin which will help the blind teacher in orienting his hand to the card or chart may be useful, but it would be a definite disadvantage to clutter the face of the card with various raised materials. Mr. Rogers feels that the blind teacher would, in the long run, have to develop a kinesthetic sense as to where things are on the card in any case, because he would not have time in class to fumble for the location of any particular detail.

TEACHING MATERIALS AND AIDS

When asked his opinion as to what sort of textbook would be the best for a blind teacher, Mr. Rogers replied that textbooks should be chosen for their proven value, and that whatever is the best text for the sighted would also be the best text for the blind, whether teacher or student.

Mrs. Christoph raised the question of teaching aids. The consensus was that there is not much of a variety available at the present time and that many innovations and improvements could and should be made. Mr. Rogers stressed that materials to be used for the blind should be prepared with the specific point of view of the blind in mind. He stated that he felt that this was one of the successful aspects of the Georgetown program; in working directly with blind people and getting their immediate reaction, the instructors had produced aids which the blind would actually find useful rather than simply aids which people thought the blind would find useful. Much of the discussion on flash cards has been taken up under the subject of Brailling. Mr. Rogers again stressed that in the handling of flash cards, as in everything else, the teacher should remove beforehand all difficulties which are extrinsic to the actual lesson, since few of the pupils will keep their attention on anything which is fumbled. The question of raised-line drawings was next discussed. Mr. Rogers made the exceptionally important point that a two-dimensional picture is essentially a very difficult instrument for a blind person to use, especially if he has been blind since birth. The blind person's contact with the world is entirely with three-dimensional things. It is extremely difficult to get across to him the manner in which a three-dimensional object can be projected on a two-dimensional plane. Mrs. Christoph suggested that perhaps he could be given a three-dimensional model to touch first, and then this three-dimensional model could be laid on a raised line drawing board so that he could trace around it. He would then be able to feel the shape of the outline, and know that it was a two-dimensional projection of the three-dimensional object. Mr. Rogers pointed out, however, that this would produce only one aspect of the object, and that the various aspects might be considerably different in outline, so that the blind person would have to learn a number of different shapes as being all representative of one item, and this without the constant reinforcement which sighted people derive from seeing the objects again and again from different angles. In the long run, the blind person would merely find himself learning a new writing system, considerably more complicated than the

Chinese, and exceptionally difficult to retain. For this reason, the suggestion of Dr. Macdonald that teaching aids might be constructed of plywood cutouts, arranged together and superimposed on each other as necessary, did not seem particularly viable. Mrs. Christoph's suggestion, however, for a model village seemed eminently workable, because the models would be three-dimensional and could be related directly to the blind person's experience. Mrs. Christoph was heartened by this and proposed to begin work immediately on developing such a teaching aid.

READING AND WRITING

Mr. Rogers felt that it is extremely important for the blind teacher that he be able to read fluently, not only so that he can manage his notes in class with ease, but also so that he can develop a sense of how reading contributes to learning.

In the same way, Mr. Rogers was emphatic on the necessity of a blind teacher's being able to write by hand. He felt that continued practise on the Raised-Line Drawing Kit would be beneficial, but he felt that some larger version should be available in order to help the teacher to learn to write on the blackboard. The question arose as to why some people who are blind write extremely badly or not at all, while others are somewhat more able. Mr. Rogers stated that he felt that the ability to write was less likely to be a function of the age of the individual than of his kinesthetic ability. None of the group seemed to know whether there was such a thing as an aptitude test for kinesthetic ability, but Mr. Rogers stated that he would attempt to find out. (A short while later, Mrs. Christoph received a letter from Mr. Rogers in which he directed her attention to some material which was marginally related to the question of a test for kinesthetic ability; unfortunately, no material which related directly to the topic seemed to be available.)

CONCLUSION

Both Dr. Macdonald and Mrs. Christoph were most grateful to Mr. Rogers for his extremely useful comments and his patient setting forth of the point of view of the blind teacher. As a result of this meeting, Mrs. Christoph and the others proceeded to develop the model city, the model house, and the engraved lettering guide.

FINDINGS ON TEACHING AIDS PRESENTLY IN USE

PURPOSE OF THE INQUIRY

Among the greater problems facing the Project has been the lack of teaching aids for the blind teacher. One of the main objectives has been therefore, research in the fields of visual aids and the use of the blackboard by the blind teacher.

THE QUESTIONS

In order to profit from the experience of others, Mrs. Christoff wrote to blind teachers in the USA, England and Germany. Among the questions asked of these teachers were the following:

a) Were you blind at the time you first learned to write? If so, how did you learn? What did you consider the best aid or technique?

b) Which grades do you teach and what subjects? How many students are there in your classes?

c) How much or how often do you depend on students or assistants? How do you correct papers?

d) How do you use the blackboard in your classes? How often do you use it? What guides or cues do you use to avoid "writing over" what you have already written?

e) Do you often distribute prepared copies of materials you wish to illustrate? What use do you make of audio-visual materials?

f) What do you consider the most important factor in a blind teacher's handling of a class of sighted students?

The answers to these questions, with any additional advice or comments, were carefully tabulated, then compared with our own findings.

THE RESPONSES

Letters were sent to fifteen teachers; eleven answers were received.

a) The teacher's age when he became blind: five teachers were blind at birth or at least before learning to write; one is registered as blind with some residual sight; one was blinded when he was an adult and had already taught for seventeen years. Four did not give any information on this topic.

b) The subjects and classes taught: five respondents are college professors in the U.S., two are in English "high schools" (equivalent of grades 10-13), one is a teacher of music in a high school in England, and another is a Studienrat in Marburg, Germany. Only two of the teachers are language teachers—one teaches German, the other Latin. Those who do not teach languages teach psychology, music, physics, (engineering), history, law or mathematics. The size of the classes varied,of course, depending upon whether it was a high school or college class, but most classes had between 15 and 25 students, with some classes however, having as many as 40.

c) Use of student assistance: One of the greatest difficulties, as the blind teachers readily admit, is the correcting of homework, and the administration and correction of tests. Almost all teachers, and especially the college professors, require a proctor although, as one teacher says, "the honor system and a sentimental appeal might work, it is nevertheless advisable to forego these, and see that justice can be done."

If the class is small enough, the students could be given an oral test, especially in a language course. Even so, at some time or other, an assistant will be required.

For the correcting of tests and written homework, all of the teachers depend upon an assistant—a secretary, a colleague, or a spouse. None of the teachers ever ask a student for assistance for this purpose.

d) Writing aids and techniques: Another great difficulty is the inability to write by hand. None of the teachers who answered the inquiry has ever attained expertness in handwriting: only the barest minimum of handwriting was ever learned or practiced, and this kind of writing remains only marginally useful, in the respondents' opinion. One respondent avoids it entirely, except for signing his name. Perhaps because the blind do not feel that handwriting is necessary, there exists no simple or convenient formal method for learning handwriting. The respondents were all of the opinion that the only way to learn is through constant practice under the supervision of a sighted person. Many of them advocated the use of the Marks Writing Guide, but for basic training only; and practice was still held to be the most important factor in achieving any skill in handwriting. The raised line drawing-board was strongly recommended by several of the respondents, either with or without a sighted supervisor. The student would first examine a chart of raised letters in order to familiarize himself with the shape of the letters. Then when he is ready to begin practicing, the raised line drawing board can be introduced.

As one of the respondents wrote:

> "One is constantly aware of how well or how poorly he is forming the letters with this aid. It most nearly resembles the normal learning to write process of sighted people because it provides 'feedback'."

In other words, the blind student is able to check on whether or not he has made the correct shape. This same respondent also recommends that blind students be given charts containing raised line drawings on the lower case and capitalized letters both in script and in print. This would be of special importance with subjects such as Greek, Russian or even German, since these alphabets require definite skill in making comprehensive and legible letters.

However, in spite of the general consensus that teachers need the ability to write script, some of the respondents flatly denied any such need, and insisted, that, although the ability to write with pen or pencil may be of some use, it is not indispensable, and can be easily replaced by typewriting. All of the respondents type well, and two state that this is the only way they write. Both of these respondents rely on Braille as their means of preparing classes or of conducting classes; they "consider the use of Braille indispensible" for the blind teacher. But in order to keep up a lively pace in the classroom, the blind teacher must not simply rely on an average, adequate ability to read Braille, but he must be extremely adept and quick with it, or else it can become a hindrance rather than an aid.

If he is not skillful enough to read Braille notes and lecture at the same time, the blind teacher can certainly use the tape recorder, as several of the respondents suggest. However, if the work with the tape recorder is not skillfully worked into the program of the course (and into the classroom schedule of the material to be covered), the tape recorder can become a hindrance; it will in time become dull and boring for the student to listen to a tape rather than to the live lecture of his professor. The tape recorder can be, however, very useful in the blind teachers' own preparation for his classes.

Like the tape recorder, the distribution of prepared lectures or other class material can become a hindrance. Only a few of the teachers use such prepared-in-advance material, and this usually consists of summaries of the lectures, which were typed up by the teacher himself, but duplicated by an assistant.

In the teaching of languages, the distribution of materials is felt to have little value, since language teaching is based on speaking and oral exercise, and on-the-spot correction and drill. Prepared materials might be useful in other teaching fields such as engineering and physics, where formulas and diagrams are needed. On the whole, most of the respondents preferred live classroom discussion and lectures rather than other forms of presentation.

Since it is one of the main research goals of this special language course, the use of the blackboard was given special attention in the questionaire. One of the salient features of the answers was the fact that though almost none of them use any type of aids, most of them do use the blackboard, at least on occasion. As one teacher puts it: the available aids "require a lot of trouble for very little advantage, and all the gadgetry of getting things set up makes the blind person seem obviously not only blind but also handicapped. Aids such as a suction cup to mark spots on the board require little effort to set up, but they do call attention to the handicap when one has to feel all around the blackboard to find them, perhaps erasing material with his hands in the process."

One teacher has perfected his own type of visual aid, but this teacher is hardly typical because he is a music teacher who requires a very special type of notation. Writing on the blackboard is unnecessary for him, since be operates only with musical symbols. As he himself says, "The board I use is one of my own design consisting of a metal-faced board with magnetic symbols. Both staff notations and alphabetic characters are used and I also have a supply of numbers for writing up dates of composers and time-signatures for musical examples. Printed on the board are lines which are easily discernible by touch ensuring a straight script; and by virtue of the magnets, the symbols can be slid rapidly and noiselessly into position from any part of the board." Further details of this apparatus may be obtained from the Royal Institute for the Blind, London, who have decided to market this Hoarse Magnetic Music Notator for use among blind teachers.

Certainly such a three-dimensional board has definite advantages. One of these is the well-formedness of the symbols. Often the teacher scrawls the symbols on the board rapidly and so does not produce an exact model for the students to imitate, but in this case the symbols are of standard form. Such a device would be of advantage even for a sighted teacher of music. Another advantage is the appeal the board has for the children; they enjoy working with the sliding symbols and their nervousness and shyness usually lessens because of this.

None of the other respondents use aids of this type. Either they depend on their lectures alone, or they use prepared audio-visual materials, such as maps for geography, or diagrams for engineering or mathematics. In a subject such as law, materials (cases) can be duplicated ahead of time and distributed to the students.

Some of the respondents state that the lack of a blackboard is not a serious handicap in their work. Among those professors who do use the blackboard quite regularly, the opinion prevails that the only way to achieve any skill at blackboard writing is to practice and practice and practice, but always under the surveillance of a sighted person. After each practice session, the writing technique should be reviewed and discussed with the assistant. (A student however, is never used for this purpose).

As for guides or cues to avoid writing over what has already been written, the following opinion of a teacher gives the most popular method: "I use my memory to avoid writing over material. The blackboard has vertical cracks which I use as guides, using one panel at a time. I do not try to write as densely as a sighted person would—I leave more space between the lines. I announce at the beginning of the course that the student should keep up in note-taking because I erase frequently. If I am in doubt about a panel being erased, I erase. As a result I sometimes erase a blank panel, but since I am talking while erasing the time is not lost. Sometimes a student makes a remark about the board already being erased, at which point I quip, 'Thanks for telling me - I've had enough Phys Ed for the day, anyhow.' When I stop writing and turn to the class for a few moments with the intention of going back to the same panel, I set the eraser down in the tray at the point where I want to start. Usually, however, I start on a clean panel."

Often, when diagrams or some other more complicated material have to be put on the board, the respondents call on the assistance of a student or more often a special assistant. These diagrams can usually be put on before the class period, thus saving time. One respondent, however, uses an ingenious method: "When I come to extremely complicated material, such as complex diagrams, that I am going to use year after year, I hire somebody, usually an advanced student, to draw it with india ink on bristol board panels measuring about 18" x 24". I put fiducial marks on the face of the diagram and Braille notes on the back. These I can hold up in front of the class while I carry on the desired discussion."

In connection with the blackboard-aids for the blind teachers, a letter of inquiry was also sent to Mr. Carl T. Rodgers, Education Specialist, (Braille and Tactual Aids), of the American Foundation for the Blind, Inc.

In his reply, Mr. Rodgers confirmed the remarks of most of the other professors, for there is no existing "writing equipment specifically adapted for use on the blackboard. Devices, such as an enlarged version of the Marks Script Guide (suggested by two professors of the inquiry), would probably not produce the high degree of writing skill required by the type of material generally put on the blackboard. The various types of guides that can be produced fill the needs of "run-of-the-mill" situations—the writing of titles of reference material, classroom announcements and so on. But when it comes to the writing of mathematical and chemical formulae, for example, requiring the use of superscripts, subscripts, signed numbers, schematic illustrations, etc., an enlarged device would not eliminate the free hand technique required in these situations."

Therefore, as Mr. Rodgers also points out, most of the accomplished blind teachers usually develop their own blackboard techniques, as indicated above.

According to Mr. Rodgers, practice and technique remain the most important aspects of blackboard writing. This aid must be minimized. "A generally accepted principle in work for the blind is that where a technique for the performance of a specific task is as effective as an available aid, the technique is preferable to the aid. The use of writing aids on the blackboard, by blind teachers, would not be particularly conducive to student attention and concentration on the work itself."

The use of the aid need not be apparent in the production of the finished result. Some type of writing aid or guide could be developed, by which the blind teacher can practice and perfect his technique on his own without the constant assistance of a sighted person. Indeed, the blind teacher must be able to practice efficiently on his own, in order that he may be, as one of the interviewed professors said, "in all respects, a normal teacher who simply requires a little assistance from time to time in situations where sight is necessary."

e) Audio-visual materials: Among the audio-visual materials used by the respondents, the most popular are film-strips or slide machines. Two respondents used overhead projection machines. However, in lecture courses such as psychology or theology and philosophy, the professors hardly ever use any visual aids. History courses profit greatly from maps on the walls of the class, but further aids are not really needed. In a language course, the direct method can be used, but this is now regarded as rather unsuitable, and the most modern techniques for language teaching give visual materials, and audio-visual materials, a definite place in all courses.

The American Foundation for the Blind, Incorporated suggests that "illustrative material, written and/or drawn on paper be scotchtaped or thumbtacked on a bulletin board placed in front of the classroom. Perhaps even better in some instances, a pegboard can be mounted on a frame in front of the room where illustrative writing and drawings can be placed in any desired arrangement, to be removed and replaced as necessary. A combination of various techniques is probably more effective than a single technique."

The main disadvantage of the films or slides, as explained by the professors, is that they are often "difficult to handle," unless the teacher has previously, carefully memorized the contents of the entire film strip. However, as one respondent stated, "the film strips can definitely be used (by a blind teacher) to advantage with adequate rehearsal and some assistance from a student." Although student assistance is never used in the correcting of test papers and homework, it may be requested for describing and explaining the film strips or other such audio-visual material. Student cooperation may be called upon, however, only if this is done, "frankly and graciously and (if the teacher) demonstrates that he has their interest primarily in mind."

f) Other problems: Mischief-makers are present in blind teacher's classes also and the main weapon the blind teacher has is his initiative. "The blind teacher must keep the initiative." Therefore, he must not depend to any great extent on the students. However, as one respondent points out, "in some ways the fact that they (the students) know they are relied on can be used to advantage within a planned framework."

Although a small class might be desirable, in order to maintain better discipline, this is "not essential, if one can capture the enthusiasm of his students."

A second major problem, in the opinion of the teachers, is the extra reading required of every teacher and professor, for he must remain the master of his subject. The blind teacher cannot read as widely as his students; he cannot therefore recommend recent books to the students, which "would excite them by their novelty, etc."

The conclusion of all respondents is that any teacher, but especially the blind teacher, must be in complete command of the class. He must, therefore, "accumulate enough knowledge to keep himself on a far deeper level than that to which the students are likely to penetrate."

FLASH CARDS

Useful flash cards have specific characteristics. They are as large as possible without being too clumsy to handle; a reasonable size is that of ordinary typing paper. The pictures on them are extremely simple, emphasizing only one central idea, and subordinating, or preferably eliminating, all detail which is not absolutely necessary to conveying that idea. The pictures are large enough to be seen easily at the back of the room. The overall effect of the picture is by far its most important aspect; there should be few or no details to which it is necessary to draw the student's attention.

The manipulation of flash cards is easiest when the cards are made of stiff, but not too thick, material. The cards are held in a stack of no more than twelve, with the picture at the front towards the class and the back of the stack toward the teacher. On the back of each card, usually in the upper righthand corner, is written a cue to the content of the picture on the other side. The sighted teacher changes cards by taking the one nearest to him, that is, the one whose cue he can read from the back, and putting it at the front of the stack. While the students are reacting to the new picture thus presented, the teacher can be familiaring himself with the material on the next card, using the cue on the back as before. A good teacher, with a little practice, becomes able to manipulate flash cards quickly, and to maintain a lively and interesting pace in the drills in which these cards are used.

For the blind teacher, certain modifications are necessary. The general characteristics of the flash cards remain the same. There is some question as to whether there is any advantage in marking the face of the card with raised lines or with raised dots so that the teacher can know how the picture is arranged on the card, and can point to areas of it as necessary. If all of the lines of the picture are raised, even though the picture is simple, the raised lines may be too many for the blind teacher to cope with quickly.

In any case, since it is the overall content of the picture and not the detail which is important, there should be no real necessity for the teacher to draw attention to specific details. Where it becomes advisable for the teacher to emphasize a detail, that particular detail can be specially marked. If, for example, the flash card represents a picture of a little girl, the class should ordinarily be asked to respond only to the idea of a girl. Undoubtedly, the girl in the picture will be wearing a dress. If the students are expected to respond to the idea of dress, it would be best to have a separate flash card which pictures a dress and only a dress. If, for reasons of lack of time or lack of assistance, it is not immediately possible to prepare a new flash card, the card picturing the girl can be used and the teacher can point specifically to the dress in order to evoke a response to the idea of a dress. In this case, the outline of the dress may be raised, or a raised dot or dots may be put on the dress so that the teacher will know when his finger is touching that area of the card. Care must be taken that any markings provided for the teacher will not prove distracting to the students.

The blind teacher should manipulate the cards in much the same way as the sighted teacher. The blind teacher, however, must read off the identifying cue with the fingers rather than with the eye. It will perhaps be less desirable in this case that the cue be in the upper righthand corner, although this position is still possible. Each teacher will have to consider whether the cue should be in that position; this will necessitate putting the hand up to that corner of the card in order to find it, and this is not a normal movement in the manipulation of the cards. However, as the back card is removed to be carried around to the front, the thumb will rest on the lower righthand edge of the back, and the remaining fingers will close around the corresponding edge of the front. If a Braille cue can be placed in one or the other of these two positions, and if the teacher can learn to read it quickly, then all of the motions involved in handling the cards will be the standard motions that any teacher would use, and there need be no diminishing of the speed of manipulation because the teacher is blind. The clues must be affixed very firmly so that they will not rub off.

The above description presumes that the teacher will prepare his own flash cards, or will supervise their preparation. This is much the most desirable system since it allows the teacher to have whatever assortment of flash cards is most likely to prove effective, and to discard or modify flash cards as experience indicates.

In certain cases, flash cards are provided with the text. These flash cards are usually few in number, and are intended to serve more than one purpose in evoking responses, so that they are less effective than they could be. If the teacher finds himself, however, in a situation where he is required to use such flash cards, a complete description of everything which is on the face of the card should be written out in Braille and affixed to the center of the back of the card. This information will be too detailed to serve as the clue to identifying the card, which should continue to be placed somewhere near the edge in whatever position seems most convenient. The more extensive description in the middle of the back of the card should inform the teacher of all items on the face of the card which will need comment in any lesson, and indicate how they are marked on the face of the card so that they can be located by the teacher's finger. If the cards are colored, an indication of the colors of the various parts of the picture should also be given if the teacher is expected to use these colors in class.

In addition to the manipulation of cards for drill purposes, the teacher may arrange them along the ledge of the blackboard or in some other position where they can be seen. It then becomes useful to have a number on the face of the card so that the teacher can use this number to indicate which card the students are to respond to.

A set of pictures from flash cards can be arranged on a larger sheet, usually thirty by forty inches and containing twelve pictures, and this chart can be hung in the classroom for use. Again, where the sighted teacher would indicate the various pictures with a pointer, the blind teacher can direct attention to them by calling out the appropriate number. Charts of this sort are particularly useful when the items on them can be used in a number of structural situations; the possibility of using the chart for a number of different purposes in a number of different lessons makes the work involved in the preparation of the chart worthwhile.

Individual flash cards may be placed about the room to represent actual persons or things on which the students are to comment. This is particularly useful for teaching the opposition of here and there, or this and that. It is also useful for introducing girls into conversation when the class consists entirely of boys, or vice versa, thus providing adequate exercise with the various pronouns, the masculine and feminine forms, and other similar distinctions. (In some cases, the designation of an empty chair as containing a completely imaginary individual of specified characteristics, catches the imagination of the students, and they can be induced to respond exactly as if an actual person were present in that chair.)

THE SWING-LEAF UNIT

The Swing-Leaf Unit consists of a standard or pole six feet tall on which a number of rectangular panels or leaves are hinged in such a way that they can be swung around the pole to any desired extent. Each leaf is thirty inches high by forty inches long, and is attached to the upright pole along one of its shorter edges, so that its width is vertical and its length projects horizontally out from the pole. For purposes of experimentation, five leaves were ordered, but it is possible to have a similar arrangement with fewer or more leaves, eight being probably the practical limit to the number of leaves which can be used. Each leaf has, on one side, a panel, either black or green, which can be used for writing on in chalk. These panels are also underlaid with metal so that magnets will adhere to them; this particular feature has proved to be the most useful of the numerous features built into the unit. The reverse side of each leaf provides pegboard, cork, or felt surfaces which can be used for other visual aids. It is thus very easy for the teacher to have at hand a variety of surfaces which can be used in various ways, each quickly accessible simply by swinging the leaves around until a leaf with the desired surface comes into view of the class.

The peculiar advantage of this unit for the blind teacher of sighted students is that the panels can be prepared beforehand, and each one swung into view as needed. In this way, there is a saving of time that might otherwise be consumed by writing on the blackboard in class. Because of the smaller size of the panels, the entire surface of which is within easy reach of the teacher as he stands before the unit, it is easier for the blind teacher to use the edges as a guide to ensure that any writing on the blackboard that is done in class is relatively straight. It is also advantageous for the teacher in that he can rapidly establish points on the blackboard by placing his hands unobtrusively on the edges of the panel rather than by using such attention-getting devices as the placing of suction cups which must later be felt for over the relatively large expanse of the standard blackboard. With a set number of panels available in rotation, it is easier for the teacher to remember what material is located in what area, which panels have been erased, and which panels will need to be erased. In addition, since only one panel need be exposed to the students' view at one time, the teacher avoids any distraction which might be caused by having the students reading ahead in the material on the blackboard, as would undoubtedly be the case if prepared material were written on a standard blackboard before the lesson began.

a) The flannel board: The attempts to work with a flannel board were not particularly successful. The blind have sufficient difficulty with two-dimensional representations that any flat visual aids must be very carefully prepared before they are useful. Flannel figures are not only essentially two-dimensional; they are also limp. They adhere to each other. They tear. It requires a rather elaborate house-keeping organization to keep the various figures separate, particularly if there is a considerable number of them. Unless the teacher has selected only a few for use in a particular class, he will have difficulty not only in remembering where to find them and where to put them when they are not on the board, but also in discovering what they are by sense of touch as they lie limply in his fingers. There did not seem to be any convenient way of putting Braille identification marks on flannel so that the marks could be depended upon to remain where they were put.

On the whole, the use of the flannel board must be considered as unsuitable for the blind teacher.

b) The corkboard: The swing-leaf panels which had corkboard surfaces proved more useful than those with flannel surfaces, but only slightly more useful. Such a surface required that visual aids, made of rather heavy paper, be thumbtacked into place. Because of the difficulty of removing the thumbtacks again, it was not practical to try for facility in moving the visual aids about from one part of the corkboard to another. The corkboard was best, therefore, for those presentations which could be prepared before class, and which would not require to be altered during the class period. In addition, attempts to move the visual aids during the class period usually resulted in the thumbtacks perforating them in yet another place, so that the aids'effect was considerably diminished in time by the excess of perforations which appeared on it. When the aids were carefully put in place before class, of course, it was always possible to ensure that the thumbtack would always go through the same hole.

The corkboard is not without its advantages, but probably must be rated as inferior to both the pegboard and the metal underlay, and superior only to the flannelboard.

c) The pegboard: The attempts which were made to use the pegboard proved relatively successful. The visual aids, either essentially two-dimensional and cut out of plywood, or three-dimensional except on the back side, which is flat, are equipped with small pegs, made of doweling, on the back. These pegs can be fitted into any hole of the pegboard so as to allow assembling of a group of visual aids in any desired arrangement. The doweling is somewhat undercut on the downward side; the amount undercut is equivalent to slightly more than the thickness of the pegboard; the aid can not easily detach itself from the pegboard, but has to be lifted slightly before it can be removed. It would be possible to attach metal fasteners such as are commonly used with pegboard to the back of the visual aids; such fasteners, however, require more manipulation before they catch in the holes, and so, if the aids are to be shifted about, more time is lost, and the teacher's lack of sight is highlighted. Even with the wooden pegs, a certain amount of moving the aid about until the peg catches is necessary, but this would almost undoubtedly be the case with a sighted teacher also, and so there is less distraction. In the long run, however, the superiority of magnetized visual aids on those leaves which were underlaid with metal was so obvious that the system utilizing pegboard was given up as being second best. The use of such a teaching device, however, would not be impractical for a blind teacher who practiced using it until he could handle it with a certain degree of skill. The preparation of the aids themselves, especially if they were made with cardboard rather than with plywood, and had small metal hooks attached to the top rather than to the back, might prove quicker and more convenient than the preparation of either the plywood aids described here or the magnetic aids which will be described below.

d) The magnetic board: The most effective manner of handling visual aids in connection with the Swing-Leaf Unit has proved to be by attaching them with magnetic bars to the smooth surfaces, which can be used for writing in chalk, and which are underlaid with metal. The visual aids are three-dimensional in effect; the side which is applied to the board must be flat, of course, but the remainder can be given any desired shape. In the experimental model, these aids are made of balsa wood, because it is extremely light, easily workable, and yet sufficiently strong to withstand ordinary handling. Other models can be made by utilizing light plastic figures, and it might be possible to turn these out in some quantity by using a Thermoform machine to make plastic shell copies of a solid wooden master.

Each aid has a magnet attached to the side which will go against the board. Bar magnets of various sizes are easily obtainable. Their size must be chosen so as to ensure that they will hold the particular aid to the board without danger of its falling or sliding, and yet will not hold it so tightly that it will be difficult to remove, or that there will be any danger of the magnet parting from the aid and remaining on the board. In the case of the balsa wood prototypes, a recess big enough to hold the magnet was hollowed out, and the magnet is fixed in place with glue.

Lines may be painted on the board in order to make particular patterns; the paint used for this can be laid on sufficiently thickly that it becomes perceptible to the blind teacher's sense of touch.

The most successful sets of aids which have been developed represent a town and an individual house. In the case of the town, the streets are laid out in paint lines to form a number of city blocks. Thin slats of wood (for ties) overlaid with medium heavy wire (for tracks) make a railway line. Models of a railway station, a church, a public library, an office building, several houses, automobiles, trucks, busses and a railway train complete the arrangement. It is also possible to arrange for bushes and trees, but the trees must not be too fragile; only essentially conical trees, such as evergreens, are useful.

The town is set up on the swing-leaf just as a model town would be set up on a table top. The difference is that on a table top, the surface is horizontal, and the houses and other models project vertically from the surface, while on the swing-leaf, the surface is vertical, and the models project horizontally from it. This shift in orientation is not difficult for the blind teacher to grasp, and has the enormous advantage of allowing all of the members of the class to see the material clearly while sitting in their seats.

The teacher is theoretically able to arrange the town in any pattern he wishes, but it has proved more practical to glue the buildings in place and to have only the vehicles movable. The teacher can move the cars through the streets, which he can feel by means of the paint lines, and to stop them at the intersections which are also marked by paint lines in the form of crosswalks. White lines painted down the center of the streets ensure that he will keep his vehicles on the right side of the street. In addition, the teacher can walk with his fingers through the town, going from one area or building to another, and explaining to the students or having them explain to him just where he is going, and why and how. The student can be called to the board and asked to move his finger or a car from point to point, explaining what he is doing. The teacher can verify whether or not he is at the place where he says he is by means of his sense of touch. This procedure can be used with sighted classes, but it is also useful in classes where the students are blind. Again, the fact that everything is contained on a panel which is thirty inches high and forty inches long, makes it easier for the blind teacher (or student) to remember the placement of the various aids, and to reach any of them quickly and easily.

THE MODEL CITY : Mrs. Ilse Christoph

INTRODUCTION

The model city has been designed for use both for the blind and the sighted teachers. This manual has been prepared especially for the benefit of the blind, mainly because their needs will be greater. Much information included here will no doubt seem superfluous and much of the description unnecessary, but it is absolutely essential that the teacher knows with some degree of familiarity every part of the city. The blind teacher must be able to handle the model with the same ease with which a sighted teacher could, and to do this, of course, it will necessitate quite a bit of practise.

There are very few features on the model which are designed as benefits for the blind. One of these is the numbering on certain vehicles, and another is the system of raised lines between different surfaces. These are only small details, however, and should not greatly call attention to the teacher's blindness.

The major part of this manual will be devoted to the description of the features of the city, with occasional comments on care and handling. At the end there will be a section on the methodology that may be employed, with emphasis on some sample situations that could be used. It is suggested that the teacher, either while reading the manual in Braille or preferably while having it read to him, follow the descriptions of this manual step by step. If there are any parts that he does not understand, he should go over them again and again until eventually he does understand them. If the manual itself is unclear at any point, he should ask a sighted person to explain that part.

GENERAL DESCRIPTION OF THE LEAF

The leaf on which this model has been mounted has overall dimensions of 30" x 40", including the outer frame, which is 1 1/4" all around. The leaf itself is made of steel and has corkboard on its reverse side.

The buildings and most of the details are made of balsa wood. They must be handled gently, because they can be crushed or broken easily. The leaf next to the model city leaf should never come in contact with any of the items on the city. For this purpose an extra set of rubber guards has been attached to the top and bottom of the aluminum frame nearest to the stand. If these should ever come off, they should be replaced immediately.

It is also important, for appearance's sake, not to scratch the paint on this leaf. It is basically a water-base paint, and at some points, especially in very hot or dry weather, it may be subject to peeling or cracking. Never leave the leaf in direct sunlight.

LAYOUT AND DESCRIPTION OF THE STREETS

For ease of reference in this manual, the layout of the city will be divided into twelve approximately equal blocks. On the actual model, however, there are only ten blocks -- that is, the two uppermost blocks are really double-blocks. Besides these there is also a circle, located just a few inches below center.

The numbering order of these blocks in this manual goes from left to right, top to bottom. Block one is at the upper left corner; block twelve is at the bottom right corner.

Altogether there are three vertical streets and two horizontal streets. Since it might be convenient to refer to these too by numbers, we will call the top horizontal street 1-H and the bottom, 2-H; the left vertical street, 1-V;

the middle vertical street, 2-V; and the right vertical street 3-V. All of these are about two inches wide, with the exception of 2-H, which is approximately two and one-half inches wide. All of the streets are painted in a medium gray. (There is one stretch, the last block of 2-H, which is done in a slightly different shade. The paint used here is an oil base paint and is glossy, which the other paint is not. This oil paint was used unwillingly because in this particular section of the leaf the water-base paint would not hold on to the steel board.)

Most of the streets have sidewalks, which are painted in white. 1-H, on the top side, has a sidewalk that is interrupted only by one driveway throughout the first two blocks. The driveway is about two inches from the end of block two. After the intersection with 2-V, the sidewalk continues for another two or three inches, is broken by another driveway, and then continues the rest of the way unbroken. The bottom sidewalk of 1-H is continuous along block five, broken by 1-V, continues for about three inches along block six, and stops. There is no sidewalk at all along block seven, but it continues, again unbroken, along block eight.

On the top side of 2-H, the walk is continuous along block five, broken by 1-V, and continuous for over five inches of block six until it runs into the circle. The circle has a sidewalk all around it, except, of course, where the walk is cut by a street. On the other side of the circle the sidewalk again picks up and continues unbroken for the rest of block seven. At the corner where the walk begins again, a yellow crosswalk or stop-line extends out into the middle of 2-H. This should be quite easy to find. The sidewalk picks up again after 3-V and is unbroken along block eight. On the bottom side of 2-H along block nine, the sidewalk is broken near the middle by a two-inch driveway. It picks up again after being cut by 1-V and runs as far as the circle. There is another crosswalk/stop-line on the street at this point. The sidewalk continues in this same pattern on the other side of the circle along block eleven. The sidewalk along block twelve is quite complicated. After the intersection with 3-V, it runs horizontally for about an inch. Then it takes a downward turn at a forty-five degree angle. This extends down about one and one-half inches, bends to the horizontal again for another five and one-half inches, makes an upward angle of forty-five degrees, and then continues on the horizontal for the rest of the leaf. The result of this cutaway area is a trapezoidal space which is filled by an extension of the road and which serves as a school-bus-loading zone. There is also a thin yellow line on the same level as the top of the sidewalk, but broken about an inch from both ends.

On the left side of 1-V the walk is solid along block five. (The street itself does not cut through the double block 1-2.) Now going down the leaf, the walk is intersected by 2-H, and continues unbroken along block nine except for a driveway near the middle. Going up to the right and top side of 1-V, the sidewalk is broken an inch from the top by a driveway, continues until the intersection with 2-H, and picks up again for the rest of block ten, Altogether there are three crosswalks/stop-lines on 1-V. There is one extending to the left from the upper left corner of block six, another on the bottom right corner of block five, and another on the top left corner of block ten.

The sidewalk on the left side of 2-V (which separates the two double-blocks) is first cut by a set of railroad tracks and then by a driveway. Next, after the intersection with 1-H, the walk commences down until it reaches the circle. On the other side of the circle it is again solid. The right side of 2-V is identical to the left except for the part above 1-H. Only one of the tracks crosses the walk, and there is no driveway.

2-V is quite complex in its details. First of all, the train tracks intersect it at an angle of about ten degrees. Then on the right side of the walk, there is the base of the crossing barrier, which keeps cars from crossing the tracks when a train is coming. The barrier, which is slightly longer than an inch, is attached to the base. The assembly of the barrier is white, with black stripes on the barrier itself. Incidentally, the barrier is movable--it swings in a plane perpendicular to the leaf. But be very careful in handling this; it is quite sensitive. Just below the barrier there is another crosswalk/stop-line, which is just above a big yellow "X"(to signify "crossing"), and below this are two yellow letters "RR" (to signify "Railroad"). On the bottom right corner of block 2 there is another crosswalk/stop-line. On the opposite street-corner, the upper left of block seven, there is another, one more where the left side of 2-V runs into the circle, and yet another on the right side of 2-V where it leaves the circle.

3-V, like 1-V, does not extend to the top of the leaf. There is no sidewalk at all along its left side on block seven. After the intersection with 2-H, it is continuous along block eleven. It is also unbroken, except at the intersection with 2-H, on its entire right side.

There is one crosswalk at the top left of block eight, one at the bottom right of block seven, and another at the top left of block twelve.

DESCRIPTIONS OF INDIVIDUAL BLOCKS

In using the different parts of the city it is important to remember that it is not an exact replica of an actual city. It has been designed to look as realistic as possible, but there are many points at which simplified representations were used. This will become more evident later.

BLOCKS 1-2: RAILROAD STATION AND TRACKS

The tracks (of which there is only one set, as contrasted with the normal two of actual railroads) are made of two long, thin slices of pine wood. There is a space of about one-half inch separating the two slices, which are painted black. They are located about an inch and a half from the bottom of the upper frame, and they make a slight upward bend about twelve inches from the left end of the leaf, eventually going off the leaf altogether between street 2-V and block 3.

The railroad station is located right below the tracks. The roof is done in brown and the walls in gray. There is a slight drop and subsequent leveling off at the right end of the roof. This flat area is the loading platform, also painted gray. To the left of the center, on the downward pointing front of the station, there is the entrance hallway to the station. The roof of this is flat and brown. To the rear of the station there is a long, thin passenger loading platform, which extends the major portion of the length of the entire station. It is painted brown and all of the doors and windows are painted black, as they are on all of the buildings. (We will not describe every single window and door on each house, but only the major ones. It would be impractical to use such knowledge anyway, since most of these things are too small to be of any use in a large classroom.) On the front of the entrance there are five large doors.

The front sidewalk, the same width as the entrance, meets the latter about half an inch from the regular sidewalk. It is flanked on both sides by green, which represents, of course, grass. On the left side the grass goes up as far as half the width of the station. The remainder of the area to the top of the leaf is gray. On the right side the grass extends as far as the right end of the station. The rest of this area of block two is gray and is a loading zone and/or parking lot. There are two driveways leading to this -- one from 1-H, another from 2-V.

BLOCKS 3-4: THEATER AND PARKING LOT

The theater, the only building on this lot, is located on the far right side. It is trapezoidal in shape, with red side walls and a black roof. There is a door at the rear (which faces up) and one at each side, both about three-quarters of an inch from the rear. At the front, facing down, is an entrance or lobby, about half the height of the theater. It too is trapezoidal in shape, with a red roof and white walls. There are long windows on both sides and a door, actually two doors separated by a ticket-seller's window, on the front. The entrance extends all the way to the front sidewalk. To the left of the theater is a parking lot, covering the rest of the block. Yellow parking lines are on the lot, and these are raised.

BLOCK 5: SHOPPING CENTER

There are altogether four stores on this block, and these will be described in a counter-clockwise rotation.

The roof of the upper-left corner store is blue and the walls are yellow. On each outward side there is a depressed doorway near the middle, the bottom portion of which is painted black to represent the door. Long windows flank both sides of each door. On the left side of the block there is a sudden drop in the wall level. This indicates the start of another store, which has a brown roof and white walls. On the left side, near the center, a double door is painted on, again flanked by two windows. On the bottom side there is just one door with the same arrangement of windows. This store ends at about the middle of the block (indicated by a crack in the wood). The next store begins here; it has a blue roof and yellow walls. There are three windows on the bottom side of this. On the right side there are two depressed doorways with a ridge in the middle, and everything is black except for the top halves of the ridges. There are windows on each side of the doors and also between them. About one-half inch from the top door another store begins, and this has a black roof and white walls. You will notice that there are two sunshades (in green) on each wall. Both have windows underneath them, and the doors of the store are located where each of the respective doors end.

None of the stores has been labeled. This has been done so that the teacher will have added freedom in the situations with which he chooses to work.

BLOCK 6: FIREHOUSE AND CIVIC CENTER

On the top left corner of this block is a small parking lot, fenced in on the top and left by a sidewalk on the right and bottom by grass. There is a driveway on the left side. Directly beneath the parking lot, but separated from it by about one-fourth inch of grass, is the firehouse. It has a blue roof and red walls. Its front, which faces to the left, has three large garage doors and one normal door. The sidewalk is extended to meet all the doors.

On the right side of the block is the civic center. It has a red roof and white walls, and there is a lobby facing more or less in the direction of the circle. The lobby is only one story high, while the major portion of the building has two stories. The front of the lobby has two large doors which face the circle. The lobby has the same color scheme as the rest of the building. The windows are painted on so that there is one row for each story.

BLOCK 7: CHURCH

The church has the shape of a reverse "L" and is placed diagonally on the block. The roof is green and the walls are white. There is a small steeple extending from the top of the front of the church, which faces the circle.

This is also in green and white, and has tiny windows on each of its four sides. Also extending from the front is a hallway in green and white. Two round doors are on the front of this hallway, and the walk that goes around the circle leads up to these doors. There are various round-topped church windows all around the walls of the church.

There are two trees on the block, simply jagged representations, which are of course green. The entire block except for the side which points to the circle, is enclosed by a green hedge.

BLOCK 8: RESIDENTIAL BLOCK

The house on the upper part of this block is in an "L" shape. It has a blue roof and yellow walls. On its right side there is a small garage, in the same colors. The garage, of course, has a large door, and the sidewalk reaches up to it. The walk also comes up to the front door.

The second house is larger, with a blue roof and red walls. It also has a garage of the same colors, and two walks extending up to the garage and front door. The front door, however, is not placed directly onto the house, but rather on a tiny hallway, about one-fourth inch in depth. There are two trees on this block, one beside each house. There is also a red wicket fence around the bottom house.

BLOCK 9: GAS STATION

The gas station is also "L" shaped, and has a red roof and yellow walls. There are two large garage doors on the "base" of the "L", facing up. On the top and right sides of the "leg" of the "L" there are two more normal doors leading to the office of the station. There are two gas pumps on the block, which should be easy to find. They are painted red with the exception of the flat sides that are parallel to the long sides of the bases. Various details, such as pump hoses, are also painted on in black. At the top right corner of the block there is a sign, on one side of which there is the word "SHELL" pasted on in raised letters. The base of the sign and the letters are in red, while the rest is yellow.

BLOCK 10: HOTEL AND RESTAURANT

The large building on the left represents the hotel, with a black roof and yellow walls. On the top of the roof there is a rectangular block, which is green. A hallway extends from the center of the hotel front, facing to the left. It has a green, round top, yellow sides, and a large front door.

On the other side of the block is the restaurant -- red roof, yellow walls. It has an extension resembling a porch on its front, facing to the right and also red and yellow. There is also a second story terrace coming from the side facing the top of the leaf. Its surface is yellow, and there is a thin red line along its edges. There is a green table on the terrace. There is another terrace, in gray, at ground level and facing the same direction as the first terrace. There are two more tables on this -- both smaller than the other table. There is also a small tree between the terrace and the hotel.

BLOCK 11: CITY PARK

The park is surrounded by hedges on all sides except the side facing the circle. It is cut diagonally by a sidewalk, which is lined with six blue benches, three on each side. There are also three trees in the park. The rest of the area of the park is covered with grass.

BLOCK 12: SCHOOL

The school has a black roof and red walls. There are two small rectangles on the roof, and these are blue. A sidewalk leads up to the front entrance, which points up. To the rear of the school there is a playground, painted gray. Two red brick walls extend from the right and left ends of the school to the beginning of the aluminum frame along the bottom of the leaf. These indicate the limits of the courtyard.

CIRCLE

Beginning at the center of the circle, there is a white fountain. This is encircled by a ring of white one quarter inch thick, a ring of green one-half inch thick, and a sidewalk of normal thickness on the outside.

Before passing on, it should be noted that the teacher should not hesitate to adapt the city to his own daily needs. For example, the school could also serve as a university or even a factory. The civic center and the hotel could both be apartment houses. The theater could be a legislature building. To simplify this with regard to his students the teacher could put small signs on the roofs of each adaptation to let each student know what functions the building would serve for him as he used it in front of the class.

DESCRIPTION OF MOVING VEHICLES

The vehicles supplied on this leaf include four passenger cars, one ambulance, one ice cream truck, one school bus, one moving van, one fire truck, and one commuter train (which has two units). All of these have from one to three magnets glued onto their bottoms. The four passenger cars have raised numbers pasted to their sides so that they may be distinguished from each other. The numbers are located so that when they are pointing to the left, the fronts are pointing toward the top of the leaf.

Car I: Blue body; grill in front is painted black; sides of the top of the cab (or riding section) are black, representing windows.

Car 2: Yellow body; black grill; black windows.

Car 3: Everything is black.

Car 4: Red body; black windows on each side; part of the front is black to show grill and headlights; part of the rear is black to show bumper and taillights.

The teacher can, of course, use each car as he sees fit; for example, one car could be the police car and another the taxi cab. It is suggested that he use the car of the same color as would be used in the particular location where he is teaching. If none of these is of the same color, he must of course improvise.

Ambulance: About the same size as any one of the cars, except that there is no dropoff in the rear to make a trunk as there is with the cars. It is painted red, with a black front grill and black windows all around the top.

Ice cream truck: Resembles three steps in shape; the lowest level is the motor, as with all vehicles; the next is the cab where the driver sits; and the final, highest step is the freezing compartment. The body is white, the grill is black, there are windows on the cab, and small freezer doors on the freezer.

Schoolbus: About two and one-half inches long, there is a rectangular cutaway on the front of this otherwise plain block of wood. The cutaway is about 1/2" x 1/4". The body is yellow, with black windows on each side and a black grill on the front.

Firetruck: This is easily to be distinguished from other vehicles by its irregular shape. It has an open cab at the front (that is, the only raised portion of the cab is the windshield), a body of the same height as the windshield, and a long, narrow ladder on the center of the body. The ladder is white and the body red. The front and back of the windshield are black, as is a small area directly behind the windshield. The grill is also black, and there is another small black strip on each side just before the start of the body. (It may be noticed that the firetruck could in no way ever fit into the firehouse. This is merely a fault in scale, and it should not be any problem.)

Moving Van: About the same size as the firetruck, it has a closed cab and is on three levels or steps. The cab is blue except for the windows and the grill. The top of the van is blue, the sides and back are yellow.

Commuter Train: This comes in two sections, which are nearly alike. The magnets on the bottom are designed to fit right between the tracks. Each car is about five inches long, and the ends are rounded. There is no front or back -- the train should be used as going in either direction. The flat ends of each car should always be next to each other. On the top of each car there is a small block which represents the motor. The train is painted gray. There are four doors on each car, quite near the ends. Windows line the sides of the cars between the doors. In handling the train, do not try to force a car around the bend in the tracks. There are two basic positions which the two units can take -- either with both sections on the horizontal side, or with one on the horizontal and one on the slanted section. In the latter case there will be practically no movement along the tracks, but in the former there are perhaps five inches through which the train may be slid.

The method by which the teacher moves the vehicles along the streets must be determined by himself, of course. It would probably be best, however, if he were to keep one finger along the sidewalk. This would enable him to follow something resembling a straight line. He should also keep the vehicles on the driving side of the road. For example, in the case of the cars, the unnumbered side should be next to the sidewalk.

METHODOLOGY: SAMPLE SITUATIONS

There is practically no limit on the number of practical conversations which may be used in connection with the model city. A few of these will be mentioned here as samples. It is to be hoped that these will give the teacher an idea on how to make more of these.

All that is necessary in the way of classroom procedures is that the teacher designates two or more of his students as speakers and give them a situation to work with. Here are some situations with some aspects of conversation that might be introduced by the teacher.

Meeting friends on the street . . (questions about each other's health, health of parents, where they are living now, where they are working, etc.)

Meeting a stranger and introducing oneself . . (statement of names, questions and answers of origination, of vocation, of present residence, etc.)

Meeting a friend . . (questions as to where a friend is going, suggestion of both getting a drink, discussion of where best to go, what each likes to drink, ordering of drinks, etc.

Asking directions for a sightseeing trip . .	(questions as to what there is to see, where it is, how best to get there, asking for a map of the city, etc.)
In a restaurant . .	(questions and answers about likes and dislikes, about food of the people whose language is being studied, ordering a meal, paying, etc.)
Shopping . .	(neighbors meet, decide to go to a department store, discuss articles, prices, etc.)
Bringing car into gas station . .	(asking for tune-up, discussing what is wrong, discussing prices, etc.)
Going to church . .	(friends meet at church, general small talk, decide to go on a picnic afterwards, etc.)
Leaving town . .	(taking a taxi to the station, buying ticket, boarding train, etc.)

THE MODEL HOUSE: Mrs. Ilse Christoph

COMPARISON OF LEAVES

This manual has been written on the assumption that those who read it will already have examined the model city and the accompanying manual. Therefore, rather than go through all sorts of unnecessary explanations and descriptions, we will first point out some differences between the two leaves, as well as some basic similarities.

First of all, the steel leaves on which both models have been built were originally identical. The same rules should be observed in handling both, i.e., the paint should not be scratched, leaves should not be banged together. Although the model city is made almost exclusively of balsa wood while the walls and doors of the house are of a harder wood, the city is probably the less fragile of the two models, since it neither projects out as far nor has as many moving parts as the house.

Both the city and the house have their respective advantages for the blind teacher as teaching aids. The house is easier to handle in that there are not so many fine surface distinctions, thus eliminating for the teacher to mistake one surface for another on the model house leaf. On the other hand, the model city has the above-mentioned advantage of fewer moving or magnetized parts. In the case of the house, almost all of the furniture is magnetized, and all of the doors open and close. Therefore, the house will be more easily subject both to breakage and to embarrassing mistakes on the part of the teacher. In handling the furniture, try to remember where every piece was last. This will result in fewer instances of furniture knocked to the floor. Remember, if a magnet is dropped often enough, it will eventually lose all its magnetism.

As in the case of the manual for the model city, we will now proceed to describe each part of the leaf in detail. If you have not already examined the house for the first time on your own, now is the time to do so. This should give you a general idea of the layout of the house, and should facilitate the following close description. (Hint: Try learning the shape of the house by following along the tops of the walls. If you do this correctly, you will have the same picture of the house that a sighted person would have if he were to look at an architect's drawing of the floor plan.)

GENERAL CHARACTERISTICS

As was true with the model city, many parts of the model house are merely representations rather than true scale models. For example, the washbasin, bathtub, and kitchen sink have no spigots; there are no curtains in front of the windows; no doorknobs on the doors; and no details such as tablecloths, flowers, etc. These details, of course, could have been added, but they would not have affected the appearance of the house to any great extent, and they would definitely have made the work of the teacher more difficult.

We will now describe those parts of the house which remain relatively constant throughout.

1. Walls and Floor Plan

The house itself is entirely of wood construction, and is only one story or three inches high. All of the outside walls are 3/4" wide; the inside walls are 1/2" wide. The outside material of the house is supposedly brick, and thus it is naturally painted red. The tops of the walls have been painted black to more effectively contrast the other colors.

Altogether, there are five rooms . . . living room, dining room, bedroon, bathroom, and kitchen. There is also a hallway to which the doors of all the rooms except the bathroom open (the bathroom is actually inside the bedroom).

II. Doors

There are seven doors in the house, and all are movable. They are painted white, but are not identical, neither in size nor in nature of mobility. The front door is located at the middle of the right side of the house. It is attached by a single hinge, and it swings in toward the house. It has one small window and some rather superfluous paneling, added merely to show that it is the front door. As you move to the left several inches along the hall, you will find two doors almost directly opposite each other. These doors do not swing, they are sliding doors, opening from the left to the right. They can, if necessary, be removed from the slots in the walls, but this is not to be recommended. They are kept from swaying up and down by two thin guard rails glued to the floor. Do not try to shove them into their respective slots as far as they will go; rather take hold of each door about one-half or three-quarters of an inch from its left end, holding on with your thumb and forefinger, and slide it over until your fingers reach the wall. This will make it easy to close the doors again. At the left end of the hall are two more doors. The one on the upper side has a hinge on the right side as you open it, pushing up. The one on the bottom also has a hinge on the right side for anyone entering the room. To see exactly how far it opens, merely give it a slight tap downwards. To close it again, just push it up as far as it will go and then add a small amount of pressure. The bathroom door, which is reached by going through this last described door, also swings in. Its hinge is again located on the right to anyone entering the bathroom. It is fully closed only when its bottom edge is touching the threshold on the floor. The last door is the back door. It is located on the upper left wall of the house, with its hinge on the right of anyone entering. It also has a threshold, and there is a window near the middle.

III. Windows

Seven windows have been cut in the walls. The original holes where then covered with thin slices of balsa wood. These are the window sills, and they are painted white. Tiny wooden sticks have been placed vertically and horizontally in each window, showing the different panes. Naturally there is no real glass in the windows. All the windows are nearly alike, and will be pointed out as each room is described.

IV. Chairs

There are seventeen chairs included among the furniture of the house. These are basically identical straight backed chairs, but six are white and eleven are brown. The white ones may be distinguished by their slanted-in fronts, while the brown ones are strictly of perpendicular design. The white chairs are intended for use in the kitchen and garden.

In subsequent descriptions of the furniture of each room, a certain number of chairs will be stated. This number may be varied to suit any arrangement of furniture. For that matter, much of the furniture of one room may be interchanged with that of another room, with only certain limitation. (The kitchen furniture would look most peculiar in any room but the kitchen).

V. Pictures and Frames

As an added attraction and adornment, three frames with pictures pasted in have been provided. They vary slightly in size; their frames are brown, and dabs of color have been added to suggest real paintings. These pictures are not held down in any way, so you may place them on any wall that faces up.

THE GARDEN

The garden encircles the house completely, as you will already have noticed. On the right side of the leaf is the gray front sidewalk, leading to the front door. It is separated from the lawn by raised lines, slightly lighter than the color of the grass. Two small green bushes flank each side of the front door. These are the only permanent lawn fixtures.

Located in the upper left corner of the leaf is the patio. The back door of the house opens to this. The patio has been painted so as to represent real stones; that is, it is gray with an irregular patchwork of green to show the grass growing between the stones. There is a light green raised line separating the outside perimeter of the patio from the lawn.

The movable pieces for the garden are: one white, round lawn table, with three white chairs; one barbeque fireplace, red to represent brick, with lines carved in to better show the texture of the bricks, and with a black grill and black pit (the place where the fire is made) and black chimney top; and two small trees (or large bushes). One of these has a flat side, and this simply means that it should be placed next to a side of the house. The other tree, of course, may be placed anywhere.

THE ROOMS OF THE HOUSE

Once you have entered the house through the front door, you will already have noticed you are in the hallway. This has light brown walls and a glossy, reddish-brown floor, which represents hardwood. There is no furniture specifically designed for the hall, but chairs, pictures, etc., may be placed there as desired.

The living room is the first room on the bottom side of the hall, the one with the sliding door, It has two windows, one on the right outside wall and another on the bottom outside wall. The color scheme of the room is light green for the walls and dark turquoise for the floor. This floor is designed to look like a rug, since it is flat paint.

As with most of the other rooms, the living room offers the teacher wide freedom in arranging the furniture. It must always be kept in mind, however, that for the sake of realism, errors such as putting a bookshelf in front of a window should be avoided. The furniture consists of a console (contains television, radio, and phonograph . . . painted brown with a gray TV screen); a desk with permanent lamp and ink blotter (desk is brown, blotter is green, lampshade is green, and lamp base is yellow); one brown bookshelf, with green, blue and black books carved in; one brown cabinet, which may be used for whatever purpose the teacher desires; one green couch; one green easy chair with brown armrests; one plain green easy chair; one brown coffee table; and two brown chairs, one of which should usually be placed in front of the desk.

Opposite the living room on the other side of the hall is the dining room, also with a sliding door. It has light blue walls and a floor of the same type and color as the hall. There are two windows, one on the right and one on the top outside wall. The furniture is all of a darker brown than that used for the floor. It consists of one large dining table, seven brown chairs (six for the table, one just standing in an empty corner), and three cabinets of assorted sizes. The tallest of these cabinets has a slight depression on the front, and this is gray to show a glass surface. The teacher may determine the use of each cabinet as he sees fit, of course. For example, one might be a china cabinet, one a silver cabinet, and one a liquor cabinet. The front of each cabinet may be difficult to determine, but each has a group of lines carved in to show the shelves or doors. These can probably be found best by running a fingernail over each surface.

The room to the immediate left of the dining room is the kitchen. This can be entered either from the hall or the patio. The kitchen has yellow walls and a white and blue tile floor. The blue is superimposed over the white, so it can be felt. The threshold before the patio entrance is blue. There is one window on the top outside wall.

The kitchen is furnished with the basic appliances; one white refrigerator, one kitchen sink (actually two sinks, right next to each other), also white; one white oven with black, circular depressions for burners; one white washer-dryer attachment (same general shape as the oven, but longer, the dryer part has a small chip on its top-front edge); one white rectangular kitchen table; three white chairs, to be placed around the table; and a permanent, white kitchen cabinet, glued in the upper right corner of the kitchen.

The bedroom, and thus the bathroom too, is opposite the kitchen. There are two windows in the bedroom one on the left side and one on the bottom side. There is a closet, without a door, just below the bathroom. The walls of the bedroom, bathroom and closet are all pink. The floor of the bedroom and closet is a purple rug, and that of the bathroom is red and white tile, with red superimposed over white.

The furniture of the bedroom consists of one large double bed (with a red cover and brown headstand) one lady's dresser (brown with a gray mirror); one gentleman's dresser, simply brown; two brown chairs; and one brown nightstand. If it is so desired, the headstand of the bed may be used as the nightstand, and the nightstand may be used as a telephone table for the hall. Otherwise the telephone, which is black with a gray dial, may be placed anywhere where it will not fall down. There is also a white bar crossing the closet, designed to hang clothes on. The furniture of the bathroom is not movable. It consists of a white bathtub, a white toilet with a pink top, and a white washbasin with a white medicine cabinet hanging over it.

METHODOLOGY FOR MODEL HOUSE: SAMPLE SITUATIONS

The major purpose of the model house is to give the students experience in working with prepositions, adjectives and verbs of motion and location. This was also more or less the purpose of the model city, but the two models differ widely in scope . . . that is, the model house situations are especially effective in dealing with inanimate objects, while the model city situations are generally most productive when pertaining to the actions of people.

This learning technique is especially useful in languages like Russian, German and French. For example, here is a sample dialogue in German, with prepositions in capital letters and adjectives and articles (quite difficult to learn correctly in German merely by explanation) underlined.

A: Wo soll *dieser kleine* Tisch stehen?
B: Dort, NEBEN *dem* Bücherschrank.
A: Und *die* Stehlampe?
B: Stell' die doch bitte ZWISCHEN *den grossen* Sessel und *das grüne* Sofa.
A: Soll *der* Stuhl dort IN *der* Ecke stehen oder VOR *dem* Schreibtisch?
B: Ich finde, der passt gut IN *die* Ecke NEBEN *die* Tür! VOR *den* Schreibtisch stelle ich lieber *den grossen* Grünen.

We will now give some sample situations, which, it is hoped, will give the teacher some idea of how to make his own.

1. *Renting a house*: Mr. and Mrs. Johnson look at a house on the suburbs of . . . It belongs to Mr. Meyer, who would like to rent it to the Johnsons. Because they have four little children, the Johnsons need a big house. Mr. Meyer shows the rooms and the Johnsons like the house. The kitchen is very large, but unfortunately it does not have a refrigerator and only a very old stove. Mr. Meyer is going to put a refrigerator in the kitchen. He then shows the Johnsons the garden behind the house. Mr. Johnson would like to know how much the rent would be, furnished or unfurnished. Mr. Meyer quotes the prices and the Johnsons rent the house.

2. *Student Description*: One student tells the class about the arrangement of the furniture of his house. While he is doing it another student goes to the model house and places the furniture according to the description of the first student.

3. *Wanting to Buy a House*: This could include making arrangements with real estate people to look at the house,

asking how many rooms it has, size of rooms, heating facilities, price, etc.

4. Moving into a House: The movers ask where they are to put the furniture.

5. Rearranging the Furniture: Teacher moves furniture, students describe his actions.

6. Renting a Room to Someone: Room is furnished or unfurnished.

7. Telling a Friend about a New House You Just Bought.

SCRIPT GUIDE

One of the basic problems of the blind teacher is the use of the blackboard. A number of the difficulties involved are well known, such as the difficulty of maintaining a straight line, the difficulty of avoiding overwriting material, and the difficulty of knowing where the writing stopped when the teacher finds it expedient to move away from the blackboard and then return to it again.

Several possibilities for overcoming these difficulties were discussed in the course of the research. Some of the possibilities sought to avoid the necessity of the blind teacher's having to write on a standard blackboard at all. Others sought to provide means for preventing the difficulties cited above. Generally, their systems proved to be impractical under present conditions because of their complexity.

a) Substitutes for the blackboard: 1) The teacher could be provided with a metal surface, or a softer surface underlaid with metal, and with magnetized letters which could be put at any place on the board. Alternatively, the board could be magnetized and the letters made of metal. The letters could either have the outline of letters, or could be painted on rectangular pieces of metal. In the former case, the teacher would rely either on feeling the shape to identify the letter, or on Braille markings on the letter itself; the difficulty of arranging the letters in a relatively straight line would still exist. In the latter case, the rectangular shapes could easily be lined up against each other so as to ensure proper linear placement and spacing; the teacher would have to rely on Braille markings to identify the various letters, unless the letters were raised or embossed in some manner, a procedure which would certainly increase their bulk and which might make them heavier. For the two great defects of such a system would be the amount of space that an adequate number of letters for ordinary classroom purposes would occupy, and the weight of all these letters as a set. The undoubted need for a pigeonholing system which would permit the teacher to know where to find each letter quickly and where to put it back so that it could be found again, would also contribute to the size and weight. Such a system would hardly be portable. An attempt was made to find plastic letters, and thus to reduce the weight, but the available plastic letters are bulkier than metal letters would be, and so decrease the weight only by adding to the bulk.

(2) For the blind teacher who has a facility for typing, some apparatus which would allow him to type material and have it appear on a display apparatus would be highly desirable. Under present conditions, however, the cost would be enormous. It was originally considered that the typewriter could activate letters in lights similar to those used on public signs to give the temperature and the time of day. Expensive as these are for English, a system which would include German umlauts or worse yet, the Cyrillic alphabet, would be considerably more expensive. However, about the time that the course was three-quarters over, a device was drawn to the attention of the project staff which is somewhat simpler, and considerably more adaptable. The typewriter is connected to an electronic computer which can activate on a cathode-ray screen, much like a large television screen, any letter or symbol for which the computer has the specifications in its programming. The effect is precisely that of the device with lights mentioned above, except that there are many more lights much closer together, so that larger amounts of material can be displayed at one time, and the letters and figures can have their traditional form, or very near it, rather than the somewhat distorted form usually found in such devices. The use of the cathode-ray display, however, presupposes the availability of a computer, and relatively few schools have computers at present. In the future, however, this device may

prove to be very helpful for the blind teachers as well as for the sighted teachers for whom it was originally designed.

b) Adaptations of the blackboard: Various projects were discussed for attaching to the frame of an ordinary blackboard a guiding device which would allow the blind teacher to be sure that he was writing straight, and to know exactly where he had left off writing. Small devices of this sort are available for writing on paper, and they consist essentially of a frame in which there are slats which run crosswise and which can be moved up and down. The frame contains as many slats as it will hold, less one. The writer begins with all of the slats pushed down, and writes in the open space at the top of the frame. He then moves the top slat to the top of the frame and so can write on the second line. In this way, by moving a slat upwards to clear each line in turn, he always has a clear indication of the line space in which he should be writing. Such an arrangement would not work with a blackboard, of course, because the slats which had been pushed up, and which, it is assumed, could be retained in place by some mechanical device, would obscure the material which had already been written, and so prevent the students from copying it. Even if the slats were made of some transparent and glareless material, there would still be one definite disadvantage. The whole apparatus focuses attention on the fact that the teacher is blind and that he needs such an apparatus in order to write. This distracts the students, is probably not conducive to the best discipline, and certainly is devastating to the blind teacher's morale. Most blind teachers indicate that they would rather never use the blackboard at all than be obliged to use such an obvious crutch. The only acceptable guides would be those which are barely apparent, such as touch-perceptible markings on the frame of the blackboard to indicate where a new line might be started; the difficulty here is that once the line is started there is no guarantee that it will continue straight. The use of unobtrusive painted lines on the blackboard is another solution which is not satisfactory because the blind person tends to write with his right hand and feel with his left. In feeling, he frequently smudges, or even erases, what has already been written. The same difficulty is found with markers which are stuck to the blackboard to indicate to the teacher where he stopped writing. Finding these markers again frequently involves groping and, in the course of this, much material may be smudged or erased.

When experiments were made with various devices that seemed reasonable, it was found that much of the discussion had been entirely academic. Very few blind people have ever learned to write script; many of them are convinced that there is no need for it, and will not learn it even when the opportunity to do so is afforded them. However, writing on the blackboard is such a normal part of any classroom situation that a total avoidance of writing on the blackboard points up the teacher's blindness quite as much as any elaborate mechanical aid to assist him in writing would do. It was therefore decided that an attempt should be made first to train the students to write on the blackboard in order to see whether it could be done effectively, and to what extent it would be necessary for the student to practise each day, and to be supervised in practice. It was felt that any mechanical device which would help the student to learn to write and aid him in practising would probably be acceptable since the device itself would not appear in a teaching situation, but only the results of using the device, would be apparent.

The device that was developed was the Engraved Lettering Guide.

The Engraved Lettering Guide consists of pieces of balsa wood two inches thick, four or six inches wide, and thirty-six inches long. The letters of the alphabet in script are incised in the balsa wood in a simplified but normal form. The incisions are half an inch deep and approximately half an inch wide and are made on one or both of the largest and broadest surfaces. Each letter is marked so that it is possible to know by touch where to begin and where to end. Even so, it is probably not possible for a blind person to deduce the method of forming many of the letters from this information alone, because of the number of loops and of returns over the same line. To begin with, then, the blind person must have the aid of a sighted person until he learns the general principles of forming the letters. Once he has done that, however, he can practise the letters, either by following their shape with his finger, or, since most fingers are slightly too thick for the incisions, by tracing them with a piece of chalk or with a retracted ballpoint pen. When the student has developed a sense of the movements necessary to form the letters, the guide can be lifted from the table where it was used and attached to a wall or to the blackboard at a convenient height, and the student can continue to practise writing his letters in this new position, which is the position in which he will be writing on the blackboard.

In order to give the student some sense of what he was accomplishing, an enlarged version of the Sewall Raised Line Drawing Kit was prepared, and this was attached to the swing-leaf unit. The students write on a sheet of light plastic over a base of foam rubber; the impression made on the plastic remains, and the student can feel it with his hand, and so discover how successful he has been.

It was found that the best way for learning to write with this combination of devices was to have the students take up one letter a day and to practise it exclusively. An attempt to learn more than one letter a day usually resulted in confusion. Naturally, after a few letters had been learned on separate days, there was a period of review in which the letters already learned were combined, and their similarities and contrasts emphasized.

One very considerable difficulty is that the students find it difficult to maintain a straight line on the board. All too frequently, especially when using the Sewell Drawing Kit, the student would tend to follow what he had produced with his right hand by running over it with his left hand. In the course of a line, both hands tended downwards. In the case of at least one student, it proved useful to have him set his right hand at a particular level in relation to his head or body, and to concentrate on keeping his hand at that level. He was dissuaded from using his left hand to follow while he was writing, so that he would not tend to use the height of his left hand as a guide. In this way, he was able to achieve a much straighter line.

This device was tried with a number of the students with widely differing results. One of the chief difficulties for many students was that they were convinced that writing script was basically unnecessary, and so they were not interested in it. They had so far gotten along by writing for themselves in Braille and for others on the typewriter, and it was difficult to convince them that they needed to learn to write in any other fashion.

At least one of the students, however, who was willing to practise daily, became relatively proficient at writing.

It is not possible to say that the Script Guide was adequately tested because of the rather negative attitude which many of the students exhibited to the whole problem of writing in script.

DIRECTIONS FOR USE OF ENGRAVED LETTERING GUIDE

The Engraved Lettering Guide is intended as an aid for teaching the blind to write in script. It is the second of four planned stages designed to acquaint a blind student with the necessary movements and strokes for blackboard writing. Due to the present limited condition of this device, a sighted supervisor is required to make sure that the blind person is making the letters and numbers correctly. Eventually, with some rather complex mechanical innovations to the original idea, it might be possible to eliminate the need for this supervisor, but this would be worthwhile only if the device were to be put on production.

The letters themselves have been done in a simplified script; that is, most of the unnecessary loops and lead-ins have been omitted. It is felt that the blind student should be able to write as simply as possible, while of course avoiding actual printing.

In case a supervisor may be uncertain how a certain letter should be formed, arrows indicating the direction of each stroke have been drawn around each letter. The start of each stroke is shown by an arrow with its base crossed to form an "x"; the end of each stroke is signified by a blunted arrow.

PROCEDURE:

It may, perhaps, be advantageous to first of all have the Guide removed from the swing leaf stand. This may depend on the individual students, but many will undoubtedly prefer to feel the letters while they are on a horizontal surface. However, the sooner that they are able to work with the leaf in a vertical position, the better it will be for the rest of the work.

The student should already have a basic familiarity with the shape of the letters through the use of the Raised Alphabet. When he first begins using the Guide, he will probably prefer to use his fingers to trace the letters. This will not work too well for all the letters—some have not been made wide enough. Nevertheless, it is not necessary for the entire finger to fit in a letter. It should suffice for the finger to run over the top of the letter.

As soon as possible the student should switch to something other than his finger—something resembling chalk. This may be anything that fits into the letters, but the ideal instrument would be the front half of a ballpoint pen, which can be held like a piece of chalk.

It is important to stress the importance of free motion, without undue pressing. This is vital both for the spontaneity and clarity of the student's writing and for the well-being of the Guide.

CONCLUSION

The series of three research projects which are reported on here have served to show clearly that the blind can be trained in language skills, and that these language skills can be put to practical use in the transcription and translation of oral materials, as in radio broadcasting, and in the teaching of languages. Thus, new areas of endeavour have been opened to the blind.

In the field of transcribing and translation, the results have been excellent. Of those students who indicated an interest in this kind of work, practically none were unable to obtain employment because of low grades. The factor which decided that certain ones could not be accepted was the question as to whether or not they could be cleared for classified or secret work in sensitive government agencies.

In the field of language teaching, it is quite clear that the blind can be taught and can fully acquire the skills needed by a good teacher. It would not be judicious, however, to state that all of the difficulties have been overcome. Among those which loom large and which must be given consideration by anyone undertaking to teach the blind such a skill as teaching, are the following.

a) There is a certain amount of resistance on the part of school administrators to having a blind teacher on the staff. Very few sighted people realize how quickly a blind person can become independent in a particular environment. They are afraid that the blind teacher will need constant aid from all around him. It is true that the blind teacher will need certain types of aid, in the form of readers and people to do certain clerical jobs, but this will really be a personal matter for the blind teacher himself, and it need not affect his performance on the school premises to any noticeable extent.

b) Many school districts (at least in the vicinity of

Washington, D.C.) have rather extensive requirements for practice teaching. The blind teacher trainee has even more extensive requirements. It seems advisable to have him practise with ad hoc classes for a considerable period before he is asked to take a conventional class. This is largely because the blind teacher requires a longer period of time to overcome his sensations upon standing in front of a class than the sighted teacher does. For these reasons, the practice teaching period for the blind must undoubtedly be longer than for sighted teachers.

c) Many of the blind are extremely self-conscious about being the focus of attention. Even though a blind person is well qualified in every other way, he must have a firm intention to succeed in teaching to help him overcome the possible vacillations and self-doubts which even those blind people who seem most confident show from time to time.

d) Perhaps it is unavoidable, but a great deal of the earlier education of the blind is directed more at training them in how to succeed as blind persons than at training them in how to succeed. Many types of knowledge which are of the commonest for sighted people are by-passed in a type of training designed for people who are blind. There are, of course, some things which a blind person can never know, but there are other things which he might very well be able to learn if only he were taught. An example is the ability to write by hand. While it is quite true that a blind person has heretofore been able to get along without learning to write by hand, it may also be true that more and newer kinds of work would be easier for a person who had this skill. Teaching seems to be one of these kinds of work.

e) When the blind are being trained as teachers, there are certain aspects of the work in which they must have special classes. Their learning of the language is more efficient when they are introduced to it in a manner which takes account of their blindness; their knowledge of the written forms of the language can only be taught in this way.

In addition, as has been mentioned above, they undoubtedly need a longer period in which to adjust to conducting classes. On the other hand, too much work carried on in an environment where almost everyone is blind is depressing. A just balance must be struck between the proportion of courses designed particularly for the blind and the proportion of courses in which the blind are intermingled with sighted students. On the whole, the preponderance should go to the latter type of course. This comment is consonant with the preceding one, which emphasizes the desirability of being a person first of all, and a blind person only secondarily.

f) After the blind person has been trained as a language teacher, one grave difficulty will be that he requires a reader who can read a foreign language, and read it well. This need not be an insuperable difficulty, but it does tend to argue for the advisability of mixing blind and sighted teachers for each language where this is feasible, since the sighted colleague, even if he does not do his reading aloud in the presence of the blind teacher, can at least give indications to the blind teacher as to material which has become available and which it might be useful to cover.

The comments notwithstanding, these three courses have shown that a great deal of good work can be done in training the blind as teachers. The cost for each individual student has been high, but that is usually the case in experimental courses such as these. In addition, in each case where a blind person is equipped to support himself, so that he no longer has to rely on public funds for part or all of his livelihood, there is a very clear reduction in expense which counterbalances the extra outlay for specialized training.

The success of these three courses has depended directly on the instructors, and particularly on Mr. Schulgin, Mrs. Baydalakova, and Mrs. Christoph. The devotion of these teachers, both to teaching and to their blind students, has been the most important factor in the building of that success.

The success of the experiment depends on the students of the courses and on the manner in which they are able to apply their knowledge and skills. Each blind person who succeeds in a teaching career will make the acceptance of blind teachers that much easier, and will make the problems which beset the blind that much smaller.

"Every man who walks a path smooths it for those who follow."